PHI DELTA KAPPAN

A Journal for the Promotion of Research, Service, and Leadership in Education

SPECIAL FEATURE

Change in Education
DOWNEY · MAYER · KOWITZ

MPATI Breakthrough—IVEY-SMITH

Report from Washington—LAND

Forward to Phonetics—BOWYER

Automated Grouping—ROLLINS

What's Your E.Q.?—LAZARUS

Comments on the Albrecht Study—McKENNA

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Nudging Education Down 'the Ringing Grooves of Change'

SOCIALIST Norman Thomas, in reminiscent mood on his most recent birthday, remarked that most of the planks of his early presidential campaign platforms have now been enacted into law.

And it is true. Yesterday's daring proposal is today's cliché. To paraphrase Tennyson, the United States, like the great world, spins forever down the ringing grooves of change.

Men make change. How do they initiate it, accelerate it, control it, evaluate it?

In this KAPPAN several authors address themselves to the problems of change in education. In our estimate, it is the most fascinating and the most important subject they could discuss.

Lawrence Downey attempts to conceptualize and systematize our approach to the problems of change. He searches for a formula by which to guide it in profitable directions. But a formula ineptly applied, as progressive education showed us, may often be futile. Where are the men of keen perception, broad vision, and infallible judgment who might make this a useful formulation? (To ask this may only be a way of saying that the first of the changes we require is new blood. Shall we bow out now or later?)

John Ivey discusses one of the day's most massive and spectacular efforts to effect change in educational technology. The eyes of the profession are on MPATI. It is now entering the crucial pilot period when educators—and laymen—will make up their minds about open circuit television. Will it suffer the fate of educational radio, whose high hopes were dashed early? Or will it revolutionize instruction over the entire nation, by doing so first in the great Midwest?

Next, William Land talks about political changes in Washington that will surely affect education, and may affect it greatly. The NDEA, he says, is in for a much-needed overhaul. But will the new administration push through to a clear definition of the future role of the federal government in education? What happens in the next few months should give us important clues.

Fred Mayer, writing out of his conviction that education is the best tool at hand for guiding and promoting social improvement, exhorts us to use it intelligently in the race against disaster. Later in his book (we have printed only the first chapter), Mayer pleads for the development of imagination as the basic ingredient of an education that can deal with the paradoxes of the atomic age. How does one develop imagination? We agree with the goal but we miss the road map.

Helen Bowyer, whose breathless prose we first used in the June, 1959, KAPPAN, is sure that a minority group, working vigorously and persistently, can win a battle for change that long since defeated such stalwarts as Ben Franklin, Bernard Shaw, and Teddy Roosevelt. (And an old, tired NEA gave up on it years ago.) This is the battle for reform of English spelling—a fantastic accretion of errors abetted by democracy and compounded by unscience. Currently, there seems to be a feeling that only crackpots spend time on spelling reform. Well, we visited Mrs. Bowyer in Los Angeles last summer and found her to be a very charming crackpot. We respect such reformers far more than we do the pedants and antiquarians who revel in tracing the cowpaths of English language development without attempting to straighten the route ahead.

The final article directly related to our theme is Gerald T. Kowitz' discussion of change and improvement of school practices. He makes the point that the improvement of school practice is, to a great extent, based upon the willingness of the administrator to examine his operations. This can result in a gradual, evolutionary improvement. The alternative is catastrophic, revolutionary change. We have all witnessed it in school districts where backward boards and status quo administrators refuse to change with the times.

Yes, let's nudge ourselves and our colleagues into continuous evaluation of what we are doing. Perhaps we can, after all, sail *smoothly* down the ringing grooves of change.—SME

Change is inevitable, in any field of endeavor. Is there a formula, in education, to guide the constructive innovater?

Direction Amid Change

By LAWRENCE W. DOWNEY

HISTORIANS are fond of pointing out that, over the years, the most striking characteristic of the North American school has been its persistent tendency to resist change. The inference in this observation is perfectly clear—and disconcerting to the prophet of educational progress. But I am nonetheless confident that in the years ahead rather rapid change will take place in our institutions of learning.

Granted, predictions such as this have been made before. Admittedly too, the promised panacea for professional practice or the anticipated "breakthrough" in educational knowledge seldom, if ever, materialized. On the contemporary scene, however, there are two specific signs which appear to me to constitute rather compelling indicators of future change in education: First, as one observes the tremendous cultural and scientific advances that have taken place on this continent since the last war, it seems inevitable that these advances will ultimately have their effect upon our educational institutions. Second, as one realizes that the great controversy over education appears, at last, to have taken a positive turn, and as one notes that the forces of constructive change are now mustering, one must be encouraged to believe that we may be at the threshold of something new—perhaps better—for our schools.

Anyone who has passed the age of thirty-five must be little short of awed with the phenomenal change that has characterized his time. The fund of human knowledge has virtually exploded; technologies have multiplied the productivity of man a hundred fold; and advances in the media of communication and transportation have caused the world to shrivel before our eyes. These advances, however, are only dimly reflected in our institutions of learning. New knowledge in the realm of human behavior has not influenced appreciably our concept of the learning process or its facilitation. The clearly demonstrated capacity of technology to multiply the productivity of workers in other fields has not yet noticeably increased the efficiency of the educator. Similarly, modern communication media, so widely exploited in other phases of our culture, are only beginning to have a real impact upon teaching and learning. Indeed, if one compares recent advances in education—or rather, the lack thereof—with advances in almost any other field of human endeavor, he will discover that the school seems amazingly primitive by comparison. This paradox cannot prevail; educational institutions will soon be caught in the progress that is sweeping our civilization.

The positive note which seems now to be faintly audible in the continuing controversy over education constituted my second predictor of educational change. The indiscriminate critic appears now to be yielding to the agent of constructive innovation: Universities, for example, are realizing, as they did on occasion in the past, that they must assume a major share of the responsibility for the full range of education; the university, in fact, seems prepared to abandon its role as indignant critic of the lower schools and assume positive leadership in the reshaping of education

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at all levels. The great foundations, too, are becoming increasingly concerned over education; more than ever before, they perceive the stimulation of educational change to be a public service in which they may appropriately engage. Finally, it must be noted that professional educators themselves appear now to be adopting an encouraging attitude; no longer is it heresy for a school man to admit that education is not all that it could or should be.

If one adds to this merger of talents and purposes the impetus currently provided by public sentiment, one is encouraged to predict that genuine educational change must be on the way.

HOW DO WE MAKE THE BEST OF CHANGE?

BUT my purpose here is not to argue the likelihood of educational change; the inevitability of change was accepted as my starting assumption. Rather, my thesis is this: If change is inevitable, we ought to prepare for it and make the best of it. For I do not think that change is all synonymous with improvement. Nor do I believe that the mere initiation of desirable change inevitably leads to the establishment of improvement on a firm and continuous basis. Indeed, the history of education is replete with instances of the rise and fall of innovations—changes that educators initiated from time to time for the improvement of their schools. Some of these innovations amounted to little more than fads, and were found out and abandoned before they gained momentum; others appeared to rest upon substantial ideas, but their implementation was aborted by uncontrolled forces in the institution; and still others are, even now, of unknown merit, for their real impact has never been properly appraised.

Accordingly, it is proposed that as one anticipates educational change, and seeks to maintain a sense of direction amid change, he should attempt to establish at least three kinds of basic guidelines: The first has to do with the facilitation and direction of the educative process itself; it requires a comprehensive image of the dynamics of teaching and learning. The second has to do with the smooth redirection of an organization's course; it involves a sensitivity for the dynamics of institutional change. The third has to do with the cumulative nature of improvement; and it requires a precise design for the continuing evaluation of the outcomes of change.

This paper attempts to deal, in turn, with each of these needs. My treatment, however, will be sketchy, for my purpose is simply to introduce each issue briefly, to demonstrate its importance in programs of educational change, and to suggest ways in which educators may proceed to establish their own guidelines and maintain direction amid change.

A Concept of the Educative Process

Education is a complex process. It may be viewed from a number of perspectives: Psychologists typically investigate learning from the point of view of the individual learner; sociologists suggest that learning experiences may be studied fruitfully from the perspective of interactive groups of learners; scholars in the various disciplines urge attention to the content of learning; and many modern educational innovators appear to believe that environment is the important aspect of specific learning experiences.

Each of these perspectives is useful. But no one, alone, is entirely adequate for our purposes. The problem of the innovator, in attempting to maintain a perspective, is not one of selecting from the variety of approaches to education, but rather one of synthesizing the most useful aspects of all contributory points of view. The innovator's need is for a comprehensive concept of the total educative process—a master framework which provides unity to all his knowledge about education. His conceptual framework should help him to envision the totality of any educational situation and it should help him in an orderly synthesis of all the activities and innovations in which his school might engage. The question is: What kind of image or concept is most useful for this purpose?[1]

1. In recent years, the confusion surrounding the purposes of public education appears to have increased rather than decreased. Thus it seems appropriate that programs of education change begin with a re-examination of goals—an attempt to establish a clear fix on what the outcomes of schooling should be. Undoubtedly, both the status of modern culture and the dispositions of a specific society should contribute to the perspective in which the purposes of education are re-examined. Within such a perspective, however, the general aim of the public school may be stated simply: to assist every individual to achieve the attitudes, skills, and knowledge necessary for the maximum realization of his potential.

2. There are, in addition to the learner, three basic aspects of any learning situation: the thing to be learned; the way it is to be learned; and the setting in which it is to be learned. Correspond-

[1] For a more elaborate description of the model presented here, see Lawrence W. Downey, "Secondary Education: A Model for Improvement," *The School Review*, Autumn, 1960.

ingly, the school achieves its mission in three ways: in what it teaches; in the way it teaches; and simply in being the kind of institution it is. Thus there appear to be three fundamental dimensions to the educative process: the substantive dimension, the procedural dimension, and the environmental dimension. These are diagrammed in Figure 1.

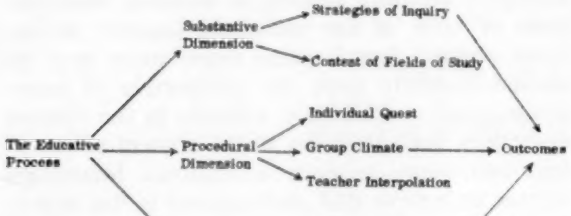


Figure 1. The Process of Education: A Conceptual Model

3. It will be noted that each of these dimensions, in turn, is comprised of a number of identifiable components. The substantive dimension includes the specific content areas and the various disciplines or strategies of inquiry—in other words, the funds of information and the means of acquiring information. The procedural dimension includes the natural quest or purpose of every individual learner, the climate and purposes which emerge in groups of learners, and the appropriate guidance and interference of the teacher. The environment is comprised of the organization of personnel, the prevailing physical conditions, and the technologies appropriate to the particular learning situation.

4. The interactions among all these components constitute the process of education. The final outcomes of the process are realized not only through the influence of individual components but also through the effects of interactions among components.

5. It follows, then, that if change is imposed upon any one component, corresponding changes will be induced in all other components and in the total process. *Thus changing a single aspect of the educative process becomes an impossibility: change must be planned in relation to its anticipated consequences for the total phenomenon.* This fact suggests the potential usefulness of the model. In the first place, it provides a framework for envisioning the totality of learning situations and for placing in perspective what one knows or believes he knows about the educative process. Secondly, it provides a rationale for deciding upon areas of innovation and for maintaining an adequate perspective on that change with respect to the total process. Finally, it provides a basis for insightful anticipation of the consequence of specific innovation in a school or classroom.

This brief outline may not, of course, suggest the best way of viewing the educational phenomenon; certainly it is not the only view. It is to be emphasized only that some such conceptual framework or structured view of the total educative process is prerequisite to effective innovation. It is sheer folly to initiate change or to presume to direct change without an adequate concept of the thing to be changed.

Guiding Organizational Change

Once a decision has been made as to the specific nature of the change desired, the next problem is one of implementation. Thus the second talent required of the educational innovator is a sensitive "feel" for the dynamics of change in educational institutions.

In organizational therapy, perhaps the most perplexing phenomenon to be encountered by the therapist is the inherent indifference of organizations to anything new or unusual. In this respect, organizations are rather like individuals. The older they grow, the more fixed they become in their ways and the less inclined they are to view change with enthusiasm. The school is no exception. In fact, the school has been acclaimed by many as our society's change-resistor par excellence. Typically, the educational institution assumes one of its functions to be the preservation of our cultural heritage and the transmission of that heritage from generation to generation. Insofar as this role is apt to be perceived as a guardianship of the cultural status quo, the school is unlikely to become a leading proponent of change.

Accordingly, the innovator can assume at the outset that inducing or directing change in any organization is not a simple matter; he can assume further that changing the educational enterprise may be something of a special case. Students of organization, however, have proposed a few theories and some procedures which appear to be promising.

One notable characteristic of the typical organization is its tendency to seek a state of equilibrium. That is to say, the organization strives to establish a kind of progressive balance: It attempts to formalize regular patterns of progress; it routinizes the behavior of its members; and it conditions itself to preserve established institu-

tions. Having achieved this state, the organization is said to be in a condition of "no change."[2]

Thus our problems become: How is this state of equilibrium achieved? How does the organization preserve it? And what are its implications for educational change? The condition appears to be achieved and preserved through the interaction of numerous counter-balancing forces. The fact that the forces are counter-balancing explains the condition of equilibrium. The fact that resultant behavior becomes habit-forming accounts for the conditioned state. For example, in most established organizations there is an acquired tradition prescribing that things be done as they have been done in the past; and doing things according to that prescription constitutes a comfortable operation for organization members. But in most modern cultures there are decided preferences for the new and corresponding prejudices against the old; and such cultural values are very much in conflict with the above-noted organizational tradition. These forces may be viewed as counterbalancing. One operates within the organization, the other without. One pushes in one direction, the other pulls back. In time the two forces adjust to each other and the net effect upon the organization becomes the geometric resultant of the two force vectors. In other words, the organization accommodates both forces and at the same time moves, under the influence of both, toward the realization of its mission.

This is the essence of organizational equilibrium. The condition is inevitably present, to some degree, in every formal enterprise. It follows rather logically, then, that if one hopes to effect change in an organization the first objective must be the elimination of these conditions for "no change." This objective is best achieved by upsetting the equilibrium, or creating imbalances in the organization. For imbalances cause reactive discharges of energy; they cause adjustive behavior in the system; and in so doing they provide the most fruitful setting for the initiation of specific changes in procedure.

Now, how can these imbalances be created? Many specific techniques have been suggested. Most of them, however, appeared to be subsumed in what has been referred to as the "change agent" technique. The change agent is nothing more than an agitator, a disturber of balance, a stimulation of discomfort or dissatisfaction. Such an agent, acting as a catalyst in the system, causes reactions and provides the setting and the stimulus for innovation.

It should be emphasized that when major imbalances are induced in an organization, the need for direction immediately becomes acute. Thus one is advised to employ the disequilibrium technique with considerable caution and with premeditation. When imbalance is introduced, the consequences are felt throughout the entire organization. Some consequences may be frustrating or even threatening to individuals or groups. It is for this reason that organizations become skillful at re-establishing equilibrium.

It is suggested, therefore, that before introducing change one should anticipate carefully the effects upon all aspects of the organization. For if, on the one hand, an innovation is introduced in the absence of appropriate conditions for change, the proposal may become aborted through apathy; if on the other hand, excessive imbalances are induced, implementation of the proposed change may become subordinated to the resolution of anxieties in organizational members. *Keen sensitivity as to the type and amount of disequilibrium appropriate to specific changes is the key to effective direction of change in an institution.*

Specifically, the innovator is advised to consider carefully the following minimal precautions:

1. Evaluate the worth of the basic idea itself, in terms of the school's purposes and in light of possible procedures for attaining it.

2. Evaluate the proposed innovation with the professional staff, not as an accomplished fact but rather in light of the need to be met and in terms of a possible procedure for meeting it.

3. Analyze the consequences for the formal organization. Define new roles and provide opportunities for training and experience in new relationships and new skills.

4. Anticipate the impact upon existing informal groups; assess the regroupings likely to be caused by the proposed change; and attempt to plan for the accommodation of emerging interactions.

5. Review individual needs and attempt to anticipate frustrations or threats created by the innovation; institute planned procedures for relieving anxieties.

6. Introduce the change on a trial basis. Failure in an experiment is not nearly as serious as failure in an adopted plan. Furthermore, a test run will provide opportunities for adjusting unanticipated consequences, for acquiring new skills, and for accommodating to new situations.

[2] This condition has been described by Kurt Lewin as "stable quasi-stationary equilibrium." The term is an excellent one. The organization is described *as if* stationary; in reality, however, it continues to function and progress.

Finally, it is suggested that adequate leadership constitutes the most important prerequisite to successful change. The skillful leader estimates accurately his "degree of freedom" for change. He anticipates in detail the consequences for the organization and for individuals. He stands ready to fill any void which may be created by the change. He times his moves carefully. And when he moves he inspires in his followers the confidence necessary for success.

Planning for Evaluation

The third and perhaps the most perplexing need of the educational innovator is a design for systematic and continuous appraisal of progress. Having planned specific change, and having implemented accordingly, the next step is to evaluate the consequences.

The problems in educational appraisal are great; certainly they cannot be treated in any detail here. In the case of on-the-job innovators, however, the prime difficulty seems to be one of perspective. Most innovative practitioners are overwhelmed with the prospect of attempting to evaluate change; they profess a complete lack of sophistication in evaluative techniques; and in problems of appraisal, more than in other situations, they turn to the pure researcher for guidance. Accordingly, our considerations here will focus primarily upon an appropriate perspective for the practitioner to maintain with respect to evaluation problems. First, we shall analyze certain real and assumed differences between so-called pure research and action research. Second, we shall attempt to distinguish between appraisal objectives which appear, at this time, to be hopeless and those which appear to hold promise. Finally, we shall propose, in brief, a rationale for the systematic appraisal of any educational innovation.

The innovator's dilemma with respect to the evaluation of action research may be at once more serious and yet less serious than he realizes. On the one hand, action research is conducted within an ongoing educational process. Unlike most analytical researchers, therefore, the innovator cannot single out one variable for treatment and expect to hold all others constant. He will find, in fact, that when he tampers with one aspect of the educative process he sets up a chain reaction among all others. Thus before and after measures, such as those employed by the analytical researcher, are scarcely appropriate. The action researcher's experiment is limited only by the laboratory—that is, the school or the classroom—not by the test tube. In this respect the action researcher's problem may be greater than he realizes.

On the other hand, the innovator's opportunities for measurement and evaluation are more extensive than those of the so-called pure researcher. When change is introduced or "treatment" applied to a complex situation such as a school or a classroom, more things happen! As an illustration, consider the simple addition of an overhead projector to a classroom. This simple act may trigger all sorts of change: It may alter the role of the teacher; it may change the content of the lesson; it may improve the motivation of the learners; and it may enhance the tone or climate of the class. Ultimately, as anticipated, it may improve learning. *Each of these developments can be appraised.* Thus, insofar as educational innovation constitutes a form of action research, one may assume at the outset that the appraisal of innovation is an extremely complex task; all forms of action research pose peculiar evaluation problems.

But there is another basic source of difficulty in educational evaluation: it inheres in the nature of the educational enterprise itself. Most organizations find it possible to engage in at least three types of evaluation. The first involves a precise, quantitative analysis of output in relation to input; it leads to an *index of economy,* a measure of the extent to which the expenditure of resources yields profitable outcomes. The second type involves a qualitative analysis of the finished product in relation either to some comparable product or to the original raw material; this leads to an *index of quality,* a measure of the comparative desirability of the product. The third measure involves an appraisal of the production process in terms of some intrinsic criterion of acceptability; it leads to an *index of efficiency,* a measure of the appropriateness of procedures.

Education in its very essence defies use of most of these appraisal techniques. An index of economy seems out of the question, for as yet the outcomes of education have not been effectively quantified. Thus unit comparisons of input in relation to output are impossible; the judgment of experts seems to be the only basis for analyzing returns on educational investments. Similarly, precise indices of the quality of educational products are not available. The "educated man" has never been described in terms which lend themselves to exact measurement. As in the case of economic appraisals, one must rely heavily upon judgment in determining the quality of the school's product. Finally, it must be admitted that educators have not yet had much success appraising the efficiency of the educative process. Even now, conceptions of the teaching-learning process continue to be

quite vague. In spite of these difficulties, however, it is proposed that in the appraisal of educational change attention to *process* may prove to be the most fruitful approach. The question is: How does one appraise a process?

Education is undoubtedly something of an art, something of a science, and something of a technology. Thus in appraisal of the process the educator may, quite appropriately, assume the perspective of the artist, of the scientist, and of the technologist. But each of these is, first and above all else, a keen observer. They differ only in the way they use their observations: The artist has a trained sensitivity through which he translates observations into new insights. The scientist's observations become testable theories or hypotheses which he is able to prove or disprove through experimentation and precise measurement. The technologist seeks to adapt scientific knowledge to his practice; he "tries out" new scientific principles and attempts to determine their relevance for his professional activity.

Accordingly, it is proposed that the need for keen observation be adopted as the first aspect of our perspective on educational evaluation. Further, it might be noted: (1) that a well-cultivated sensitivity for the total educative process enables one to translate observations into useful insights as to the likely consequences of change; (2) that skill with precise measuring devices makes possible the discovery of new knowledge about specific aspects of change; and (3) that simply trying-out new ideas leads to improvement in the techniques of educating.

Earlier in this paper we described briefly a concept of the educative process. It will be recalled that the process was conceived to involve interactions among three basic dimensions: the substantive, the procedural, and the environmental. This view of the process may suggest a useful design for systematic appraisal of change to any aspect of the process.

Suppose, for example, that one introduces a specific change to the environment. Presumably, this interference will first cause a series of *immediate consequences* by inducing change in all other dimensions; these immediate consequences, in turn, will react upon the total process and produce *intermediate results;* and ultimately through further development of the process *final outcomes* will be realized. Figure 2 illustrates this cumulative and developmental nature of change. When the change is introduced at the environmental level there are immediate consequences for the other dimensions. These may be observed at point A. The intermediate results to follow are

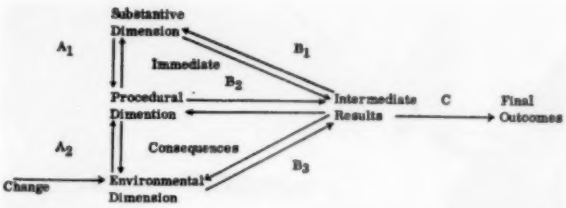


Figure 2. Evaluation Points in Educational Innovation

observable or measurable at point B. Ultimately, final outcomes may be assessed at C.

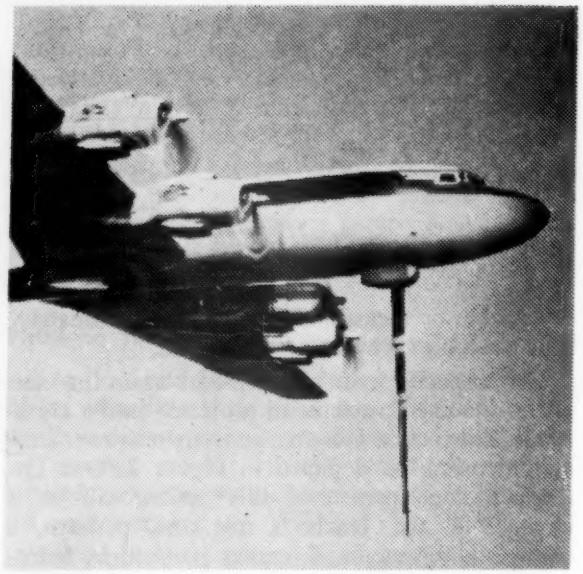
For a specific example, consider again the case of introducing an overhead projector into a classroom. This action is a change to the environmental dimension, as depicted in Figure 2. One immediate consequence of this action will be a change in the teacher's role and, perhaps, a change in the mode of inquiry pursued by learners. These in turn may produce, as intermediate effects, improvements in individual student motivations and/or significant alterations in the social climate of the classroom. Eventually, student achievement may be influenced one way or another. These results will be progressively realized, and should somehow be appraised as they occur.

In summary, it is proposed that, as a second aspect of one's perspective on evaluation, it be realized that adequate appraisal procedures involve much more than the measurement of student achievement. Through sensitive observation one can discover ways of increasing the learning opportunities in specific situations. Skillful appraisal of the intermediate effects of change may suggest further modifications of the educative process. And precise measurement of final outcomes provides a useful basis for retrospection. All these techniques qualify as respectable evaluation devices; each is essential in programs of educational change.

Our treatment of the three basic needs in educational change has, of necessity, been brief. As indicated, however, our purpose has been to point up the necessity of these guidelines, not to describe them in detail. The rationale we have proposed may assist schoolmen in establishing a sense of direction amid the social and educational change which is, even now, upon us.

► "Television is our best hope for bringing today's outworn, restrictive, and unimaginative educational system out of the oxcart age and into the 20th century."

—Herold Hunt, Eliot Professor of Education, Harvard University



By June that 24-foot antenna will be sending TV lessons to over 500,000 pupils.

MPATI: Educational

By JOHN E. IVEY, JR., and

ON January 30, 1961, the Midwest Program on Airborne Television Instruction was expected to begin telecasting instructional courses, recorded on video tape, from a plane circling high over north-central Indiana to schools and colleges in six states. Telecasting began on a partial schedule for a demonstration period to end in May. In the academic year 1961-62, a full program will be broadcast. The area receiving the signal is at least 150 to 200 miles in radius. It encompasses parts of Illinois, Indiana, Kentucky, Michigan, Ohio, and Wisconsin.

The Ford Foundation has granted $4,500,000 to the Midwest Council on Airborne Television Instruction to finance this project. Other contributions are coming from private industry. The total cost will be about $7,750,000.

The Midwest Council was organized to afford educators of the region an agency to search for solutions to some of the major problems facing American education today—the problems of offering a greater quantity of education to meet the needs of a growing school population and at the same time providing increased quality of instruction; and to do these things without raising the cost of education beyond foreseeable means.

The council decided on a major project involving television because this medium has proved its usefulness in providing instruction of high quality to large numbers of students. The airborne method was selected because it can reach greater numbers at less cost than can ground-based transmitters. Equipment and operation for airborne transmission are estimated to cost about one-third as much per pupil, given 5,000,000 pupils, as equivalent ground-based facilities.

For these reasons, the council has planned the airborne program. During the initial phases of the program, the council will work with local school boards and states in the region on ways of constructing a viable form of permanent organization to plan, manage, and finance the permanent program.

To make sure that the courses selected for telecasting would relate effectively to the educational needs of the region, the council wished to obtain wide consultation with school and college personnel in the telecast area. Accordingly, the following steps were taken:

1. The council staff met in November, 1959, with the state superintendents concerned, and on the following day with thirty-nine superintendents of city and county systems in the region, to get

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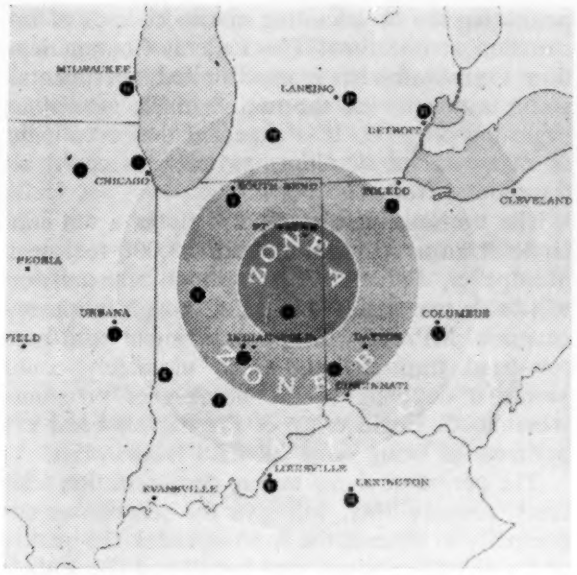
Breakthrough in Television

BRYGHTE D. GODBOLD



Numerals indicate location of 18 colleges and universities assisting in MPATI.

their advice on procedures for developing curriculum and other aspects of the project.

2. As a result of those meetings, a curriculum policy and planning committee was formed, consisting of twenty-three representatives of state, county, and city systems.

3. In January, 1960, ninety-three college and university representatives from the six-state area met to advise on the higher education aspects of the program. As a result of this conference, a section on higher education was added to the curriculum policy and planning committee.

To insure that content of the courses recommended by the latter committee would be in harmony with curricular requirements of the several states, that the suggestions of appropriate professional educational organizations would be used, and that course content would meet regional needs, panels of subject-matter specialists from the several states were called together to work out "ground rules" for the development of each course.

Because the quality of the teacher is in the last analysis the keystone of educational quality, the council wanted to find the best possible teachers for the airborne courses. Therefore a nationwide "teacher talent search" was launched. Letters went to all chief state school officers and to 230 selected city and county school administrators, explaining the project to them and asking their help in finding excellent teachers. The staff met with the managers of educational television stations from all over the country to acquaint them with project plans and enlist their cooperation also. This meeting was followed by a conference with the ETV station managers of the six-state region. From these sources the council obtained kinescopes and taped "auditions" of about 300 teachers from all parts of the nation. A screening panel of twenty-two Midwestern educators experienced in working with instructional television developed a recommended list from these auditions, while the headquarters staff assembled additional information about the teachers. Final selections were made in accordance with the courses chosen.

The television teachers came together in a workshop at Purdue University in the summer of 1960. There they outlined the courses, drafted supplementary written materials, and planned for visual aids and production. Actual production and taping of courses is taking place at several centers (chiefly ETV stations) under the general supervision of the Learning Resources Institute, contracting agent for MPATI production.

Westinghouse Electric Corporation is engineering the telecasting system to be carried in the planes. The council has purchased two DC6AB aircraft, one for regularly scheduled flying and one for stand-by. These are being equipped by Westinghouse and CBS to transmit the courses to the schools. The feasibility of airborne telecasting has already been demonstrated by Westinghouse in a three-year experiment. Recent studies based on this experimentation make it possible for MPATI to telecast over two channels, thus

permitting the broadcasting of two courses of instruction at one time. The Federal Communications Commission has granted limited experimental authorization to use the two channels needed to begin the program. It is expected that eventually as many as six simultaneous telecasts could be transmitted from one plane.

The transmitting aircraft will fly in a ten-mile circle at an assigned altitude of 23,000 feet near Montpelier, Indiana. Air-to-ground transmission will be on two standard-band, ultra-high-frequency channels. MPATI will also experiment with narrow-band transmission, which ultimately could permit a doubling of the number of programs transmitted. Engineering of the narrow-band experiment is being done by CBS laboratories.

The period of signal testing demonstration telecasts, January-May, will give the schools an opportunity to observe the courses, check the quality of the signals received, and install and check their receiving equipment. When the exact signal area is determined, ETV stations in major cities will be encouraged to pick up the telecasts for rebroadcasting to "fringe" areas. They may also record them for local telecasting at hours different from the MPATI schedule.

A technical advisory committee on TV receiving equipment has assisted the council in preparing information for the schools about receiving equipment, its installation, and its cost. A further description of plans and requirements for receiving equipment is given in the final chapter of the manual issued by MPATI, "Equipping the Schools."

The Midwest Council on Airborne Television Instruction has its main office at Purdue University. During the initial stages of the program, Purdue and the Purdue Research Foundation are providing the council with legal, fiscal, and physical facilities. Purdue faculty and administrative officers participate in various phases of the program. The council operates as an independent policy-making and management group.

Schools and colleges in the region will participate in the program on a voluntary basis. They may use as many or as few of the courses as they wish and may equip as many or as few classrooms as they wish. Schedules and course descriptions will be furnished to them well in advance of the beginning of telecasting.

To assist the schools in making the best use of the telecasts, twenty area committees have been organized. The area committees make possible close liaison between the operation of the program and the communities using it.

Twenty universities, each responsible for providing staff and services to an area committee, are functioning as the hubs around which programs helpful to schools are being conducted.

IT is the policy of the Midwest Council on Airborne Television Instruction that the educational, technical, economic, and administrative-managerial aspects of the program be evaluated and that evaluation shall be conducted during the planning and execution of the program rather

This group of outstanding teachers, all experienced in television, prepared the videotapes being used during the current MPATI demonstration period. There is an expected audience of over 450,000 pupils for eight elementary school courses, 70,000 for four secondary courses, and 2,500 for two college courses. L. to r., seated—Miss Thais Lindstrom, Miss Rita Criste, Mrs. Loretta Doyle, Miss Barbara Vanowski, Mrs. Dolores Dudley. Standing—Zelik Zeff, Benito Lueras, Miss Darlene Beigel, Stephen Smalley, Mrs. Elizabeth Dabbs, John Burns, Myles Platt, John Dickey, Mrs. Geraldine Workman, Miss Helen Rapp.

(For an "Announcement of Offerings," January-May, 1961, write Midwest Council on Airborne Television Instruction, Memorial Center, Purdue University, Lafayette, Ind. A thumbnail sketch on each TV teacher is included.)

than on an "ex post facto" basis at the end of the project phase. Accordingly, work went forward as rapidly as possible to complete an over-all evaluation plan before actual telecasting began. In the economic and technical areas, evaluation has already been started and will be incorporated into the total plan. Also underway is a history of the project, which will provide a framework and background material.

Personnel for the evaluation program were added to the central staff in the early fall of 1960. Evaluation procedures will be set up and administered through the area coordinators. The staff will develop or select instruments for measurement, and will assist the schools not only with their part of the general evaluation program but also with such evaluation as individual schools may wish to undertake independently for their own purposes. Concurrently, steps will be taken to inform and interest research agencies and investigators throughout the region regarding the possibilities inherent in the program for co-operative or special independent research projects. The work of evaluation will be assisted by consultation from specialists in the resource institutions and other evaluation experts.

If the airborne experiment fulfills its promise of success, it may serve as a pilot project for similar regional programs in other parts of the country. Already inquiries about its courses and methods have come from many parts of the United States and from some foreign countries. The program has important implications for education in underdeveloped parts of the world, where needed and useful education could be carried on by the airborne method without having to wait until levels of literacy could be raised. The Midwest region is therefore undertaking an educational venture of great significance for the nation and the world.

Here are some frequently raised questions about the program, with our answers:

Q. *Will individual teachers, curriculum supervisors, administrators, and school board members be able to affect policy and program of the airborne project?*

A. The Midwest Council on Airborne Television Instruction has anticipated the desirability and necessity of having the active participation of all affected by the program. The mechanisms for communication between the classroom and program planning and administration have been set up in the area committees and regional advisory commission. All the teachers, schools, and school boards in the area of any resource institution have access to the area coordinator and area committee. In many cases an individual school will have direct representation on this committee. In any event, the area committee is charged with obtaining feed-back from teachers and curriculum people in the field, and with transmitting this information to the regional advisory commission, which suggests policy changes to the central staff and the council. Finally, the evaluation of the project will provide opportunity for individual teachers and students to express reactions, opinions, and suggestions which will form a basis for modifying the program.

Q. *How can the schools participating in MPATI provide for articulation between the various levels of a local system when MPATI is devised for a six-state region?*

A. Instructional television of itself is not an all-inclusive means to learning, any more than is any other major resource or teaching aid. Articulation—that is, the arrangement of orderly, meaningful, sequential learning experiences year by year and within the year—is a function of the classroom teachers and the school staff. Teachers and administrators in schools participating in MPATI will have outlines and calendars of the televised lessons far enough in advance that they can make proper provision for integrating them into the total program of the schools.

Q. *Why telecast from a plane rather than use a ground-based network?*

A. Briefly, the total capital and operating costs of airborne transmission are less than the costs for a sufficient number of ground-based stations to serve an equivalent geographic area. However, it must not be assumed that successful use of airborne telecasting will obviate the need for ground-based educational television. In view of the staggering size of the country's educational task and the demonstrated degree of usefulness of television for helping with this task, the schools are going to need every feasible means of putting television to work in their programs.

Q. *Will bad weather interrupt the telecasts by preventing the plane from flying?*

A. Aeronautical authorities state that in the particular area where the MPATI plane will operate, weather will permit planes to fly 98 per cent of the time, and that the majority of flight cancellations and delays are due to factors other than weather. Thus it is expected that the regular plane will nearly always be able to go aloft at Montpelier and make its orbit. Further, since the relative severity of weather conditions is often localized, the stand-by plane, which will be based

at another location, will be able to take off many times if weather should prevent the regular plane from doing so. The stand-by plane will of course also be used in case the regular plane has mechanical difficulty.

Q. *Will the classroom teacher using the Midwest telecasts be relegated to a custodial role?*

A. The council has taken special pains to obtain studio teachers of unquestioned excellence and to make sure that the lessons they present are of high educational quality. To have done less would have been to offer the region an inferior instructional resource. However, the way these lessons are used in the classroom by the classroom teacher will in the last analysis determine whether they are or are not effective instruction. The council has no hesitation in assuming that the many splendid classroom teachers in the region will exercise their finest professional talents in the functions of application, clarification, meeting individual needs, planning and working with assignments and tests, and generally performing the professional role of the classroom teacher.

Rochester Superintendent Fired

► *The School Administrator,* newsletter of the American Association of School Administrators, carries an editorial by James M. Spinning in the January issue which many Phi Delta Kappans will wish to read. It deals with the dismissal of Howard C. Seymour as superintendent of the Rochester, New York, school system. Dr. Seymour is now serving, with Robert J. Havighurst of the University of Chicago, as co-chairman of the PDK Commission on Prevention of Juvenile Delinquency.

These are excerpts from Spinning's editorial:

"The Day of Infamy came early to the Rochester school system this year. On December 1 the board of education told Superintendent Howard C. Seymour that it would not renew his six-year term, which expired December 31. Just the day before, 50 of the most respected community leaders, including presidents of the largest industries and the banks and leaders of both political parties, had publicly expressed the highest confidence in Dr. Seymour. . . .

"A storm rose instantly—'shocking,' 'incredible,' 'ridiculous.' Editors of both Rochester papers roundly denounced the action. So did the school principals, in unanimous declarations; and so did the trustees of the Chamber of Commerce—the first time in the history of Rochester that they have risen to defend the merits of a public official. Parents and pupils wrote angry letters; clergymen preached angry sermons. One sardonic comment: 'At least this board has the courage of its stupidity.'"

Spinning notes that the board justifies itself by quoting a teacher morale study made by a private research association last March, when salary adjustments were pending. "Almost everyone agrees that two months later the responses would have been different." The research association told the board that its report was never intended for such use as was made of it. A canvass by the Rochester Teachers Association on December 5 shows 72 per cent of the teachers in Seymour's corner. Their leaders, says Spinning, are furious that the board pinned its action on the teaching staff.

Seymour has himself called on all hands to close ranks in support of new leadership.

Ivey to Head Evaluation Committee

► John E. Ivey, Jr., consultant to the president of Michigan State University and president of the Midwest Council on Airborne Television, was recently appointed head of a special advisory committee of educators to evaluate the effect of federally-sponsored programs in the field of higher education. The committee will work directly with J. Kenneth Little, director, Survey of Federal Programs in Higher Education, U. S. Office of Education.

Commissioner Lawrence Derthick explained that the committee will act under provisions of Title X of the National Defense Education Act, which require the Secretary of Health, Education, and Welfare to obtain full information about all scholarship, fellowship, or other educational programs administered by any federal department or agency.

Radio and Television Bibliography

► The U. S. Office of Education has published a selected bibliography titled *Radio and Television,* available from the Government Printing Office, Washington 25, D. C., for 25¢. The 46-page booklet is designed to be of service not only to teachers, school and college administrators, and students of professional broadcasting, but to representatives of industry as well. Included are volumes reporting findings of research and experimentation, significant contributions to the educational applications of media materials and techniques of utilization, new developments in professional skills of broadcasting, and a limited selection of technical books. Under "Sources of General Information" are the names of organizations and groups from which helpful pamphlets and booklets are available.

► Thirteen additional ultra-high frequency channels are being sought by Florida's Educational Television Commission to operate educational stations. The state already has a five-station educational TV network.

► "Teaching by Television," a detailed review of the Ford Foundation's classroom television experiments, may be obtained from the Office of Reports, the Ford Foundation, 477 Madison Ave., New York.

An independent observer comments on the forces affecting education at the federal front.

Report from Washington

By WILLIAM G. LAND

THE next time your Congressman tells you that there is not enough money for education—that it is needed for defense, for diplomacy, for science and space, for highways, for unemployment or medical benefits, for all the things that people want in addition to education—tell him, and firmly, that this is not a matter of money: it is purely a matter of votes. Those who are willing to support a vote to spend must also be willing to vote to pay. We are in for a politically-minded administration which can be expected to operate on the premise that the days of an irresponsible affluent society are numbered. This means not simply a belt-tightening, but the creation of leadership in changing the nation's attitude from one of setting goals and then spending to attain them to one of insuring that the proposed spending will be productive. Legislators, whether state or federal, appropriate money and distribute taxes in response to pressures—economic pressures, special interest pressures, popular or mass pressures, and meaningful votes. The administration's task is to balance these and to remain in power. More important to the nation's welfare, the task is to communicate the thinking of the political leadership so that the government may act with public understanding and approval.

To the country at large, the image of education is the school, all the way from kindergarten to some nebulous cloud beyond college. When you say "education," people think of schooling. When you say "research," people think of test tubes but not necessarily of universities; rarely of the social sciences; almost never of education. Thus the legislative or political definition of education is that of schooling. This is the basic image underlying both the Democratic and Republican party platforms, the U. S. Chamber of Commerce statement of policy of May 4, 1960, and the National Education Association resolution of July 1. All indicate that the nation should support its schools; their differences are in emphasis, degree, and method. Against this background, plus the explicit affirmations of President Kennedy both while a candidate and afterwards, it can be expected that the Congress will find that there are widespread pressures for federal aid for school construction. This type of aid has a practical relief objective with definable and foreseeable results. It is widely regarded as an anti-recession measure, just as it was during the New Deal. There is evidence that solvent communities can market school bonds successfully, but the temper of the times favors federal and state aid through hidden taxation in preference to property levies. This is part of the picture of a soft and dependent America which President Kennedy has warned us against, lacking what grandmother might have called intestinal fortitude. Nevertheless, the political price of the educators' pork has already been set. There will be federal aid for school construction enacted by the 87th Congress, probably early in this session unless pressure should develop for a package deal. The Hovde "task force" report of January 6 reflects the hopes and some of the gripes of university administrators as much as it deals with national problems. Besides emphasizing the issue of local determination of school needs, it also invites argument on the principle of federal intervention to redress the urban and rural imbalances in our society, of which inequality of schooling is one.

The political price would be illustrated by the defeat of support for teachers' salaries and also of any amendment which would deny funds to school districts which do not comply with federal court desegregation orders. These matters will be argued at length in hearings, and they will raise emotional temperatures. Both, in widely different degree, have social benefits as their objectives;

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both are amorphous and debatable as to their consequences, and together they prevented the passage of federal aid for school construction during the 86th Congress. Yet federal aid to education is a Democratic and administration "must." Speaker Rayburn warned the President-elect that support for teachers' salaries will not be forthcoming. Vice-President Lyndon Johnson has not spoken, but it is unlikely that he will relinquish power behind the scenes. The price for action on other important issues can readily be estimated to include some agreements not to interfere with the success of the school construction bill. Furthermore, with former commissioner L. G. Derthick now in a more effective guiding position,* it can be expected that the education lobby will put its whole strength behind the legislatively attainable rather than the professionally idealistic.

Similar pragmatic considerations underlie the success or failure of other legislative proposals. In the field of education the one with perhaps the widest ramifications is that for the renewal of the National Defense Education Act of 1958, for it involves a number of disparate activities. Originally hitched to the specter of Sputnik, it represents a conglomerate of special pleadings to reinforce certain activities of the states and of two federal agencies, the Office of Education and the National Science Foundation. Unlike the plea for federal aid for school construction, the extension or expansion of the NDEA after 1962 holds little political urgency and rouses no popular hysteria to insure legislative enactment. If by that time we are engaged in a hot war, there will be more pressing needs for defense; or if the Kennedy administration has by that time clarified the implications of a continuing cold war, we may have come to recognize that ordinary educational measures on any level of schooling are quite peripheral to defense. In the January, 1961, issue of the *Johns Hopkins Magazine,* Professor Charles Burton Marshall—a former member of the State Department policy planning staff who is at present a visiting professor at the University of North Carolina—points out that there are three, and only three, practical alternatives for countries outside the Soviet orbit: (a) acquiescence in Soviet designs, otherwise called "peaceful co-existence"; (b) a contest of purpose without attempting to settle the issue by a general application of force, i.e., an unremitting "cold war"; (c) a general resort to force. Yet all the reports of accomplishment and the published plans of education's goals for the future blithely assume peace in our time and educational business as usual. Upon this basis the legislative continuation of NDEA programs involves nothing more than an enlargement of the normal appropriations for the Office of Education and, in Title IX, for the National Science Foundation.

Demands for 'Bigger, Better' NDEA

Except on the generally debatable question of federal control resulting from bureaucracy and regulation (and the frustrations and overhead expenses resulting from regulatory minutiae are not inconsiderable), there is no effective organized opposition to the continuation of NDEA programs; on the contrary, there are demands for making them bigger and better. Under Title III, for instance, teachers of English and the social sciences would like equality with the so-called defense subjects (science, mathematics, and foreign languages) in receiving instructional aids and equipment, and school administrators would like to extend these programs to other parts of the curriculum. Under Title V, some administrators would like to extend the guidance and counseling program to include other types of schools than the public secondary schools, and would like more flexible arrangements for holding and attending institutes. Under Title VIII, which provides for an extension of vocational education programs on an area basis for the training of technicians in occupations requiring scientific knowledge, it has been suggested that either such programs should be entirely post-secondary or more money should be appropriated to permit growth at several levels. In Title X (Sec. 1009), the administrators of state school systems favor the inclusion of project funds for the development of local-state-federal reporting systems and their installation and operation. Everyone wants everything from crickets to computers; no one is going to set a goal which cannot readily be attained by spending enough to reach it.

On the other hand, the non-public schools find themselves in the position of not taking advantage of opportunities for self-improvement, and thus in some instances they are not spending allocations set aside for their use. Their problems in both counseling and in language teaching are often not identical with those of the public schools, and thus NDEA programs are basically not geared to non-public schooling. There is, too, a reluctance to become involved with either state or federal programs as a matter of principle, and in some areas a legal prohibition against spending any

* The NEA announced in December that Dr. Derthick would become assistant executive secretary (to Dr. William G. Carr), with responsibility for "educational services," after leaving the U. S. Office of Education.—*The Editor*

state funds for the benefit of privately supported schools. The problems involved in enhancing the resources of both the independent and religious schools for the benefit of the nation are not easily solvable, and go far beyond the particular programs of the NDEA.

In the post-high-school areas of the NDEA, many of the proposals are for revision rather than for expansion. For instance, the American Council on Education's federal relations committee, meeting last November 29-30, called for federal payment of the cost of administering the college student loan program under Title II, as well as for extending the forgiveness features to include those entering college and private school teaching. The committee also advocated removing the present ceiling on federal capital contributions, and would require student borrowers to make minimum annual payments. Like other educational groups, the ACE would like to have a large new federal scholarship program as well as the present loan program, and specifically advocates the selection of scholarship recipients by the institutions themselves and a federal cost-of-education grant for each scholarship student enrolled. This same feature, with respect to fellowships under Title IV, is proposed as a fixed amount per student rather than a computed cost as at present, thus saving overhead costs for both institutions and the federal auditors. In addition, more flexible fellowship programs are proposed, including some which would not be dependent upon the institution establishing a new or expanded program in order to qualify for federal fellowships.

There is a general feeling that the stipends which are now paid only to public school personnel attending counseling and language institutes under Titles V and VI should be available to all those attending. There is also some suggestion both that these institute programs should be extended to persons working at the college level and that capable undergraduates be allowed to enroll in the NDEA language institutes.

These specific suggestions for amending and expanding the NDEA will be presented in detail in hearings during the coming months. On January 13 Secretary Flemming issued some not wholly unanimous advisory committee recommendations regarding the NDEA programs. It is expected that some statement as to the function of the Office of Education as a whole in its program of service to the nation will also be forthcoming. Any proposals for the coordination of federal programs at the college and university level will, however, await the completion of initial studies being made under NDEA Title X (Sec. 1001d). It is only reasonable strategy for the Office of Education to begin now to cover within its normal budget the NDEA programs which it regards as having permanent value. For this reason, the details of the appropriation bill for the next fiscal year may be more significant in their implications than any debate on the amendment or extension of the National Defense Education Act itself. Even if the Congress should delegate to the states the administration of a federal program, it must be recognized that federal direction is inherent in any federal law, regulation, or court decision relating to education. The tide of federal programs is already exerting considerable force; the problem of educational administrators is how to utilize that force and at the same time control it without in turn being controlled.

Little Likelihood of Large, Unrestricted Grants

There are some people in power in the states who would like nothing better than to have the federal government make large grants to each of the fifty states and let the state educational authorities determine how to utilize them. For somewhat different reasons, which largely pertain to academic research rather than to schooling, the same desire for unrestricted grants has also been voiced by universities. The historic form of federal action, however, has been to make specific provision for specific purposes. This is the basis on which the conglomerate NDEA was concocted and enacted, as well as early federal provision of funds for vocational and home economics education, surplus commodity lunch and milk programs, school construction and operation in federally impacted areas, and practically all the grant and contract programs for research and specialized training. It is to be expected that this Congressional practice of providing support for definite objectives with definable and foreseeable results will be continued. Both Democratic and Republican party platforms, for instance, gave support to continuing federal aid to college students and loans for the construction of classroom buildings. The pattern of federal educational practice is that of particularization; there is no federal educational policy to be discerned otherwise.

A number of people and committees have talked about defining education's goals in order to evolve a consistent national policy to improve our schools. In view of the diversity of educational objectives, this would be a laudable enterprise if its findings

were less concerned with the welfare of the schools than with the welfare of the nation. In June, 1958, the top brass of the U. S. Department of Labor were given an analysis by Dr. Eli Ginzberg of Columbia University of the role of government in manpower policy and its implications for education and training. A report of that analysis appeared in the *Monthly Labor Review* for that August. Educators, being concerned only with schooling, paid practically no attention. Back in 1951 the first report of the National Science Foundation said, "Under conditions of cold war economy, the over-all need for trained personnel is perhaps greater than it would be under full-scale mobilization." Educators, being busy with their schools, did not catch the implications for education; instead, they talked about holding power, changing the character of secondary education, appropriate balance between required and elective subjects, and experimentation to build a program of work experience. It is an unfortunate fact, although not a surprising one, that education is not highly regarded in the councils or politics of our nation. Otherwise we should long ago have had a Secretary of Education, Training, and Manpower.

Such are some of the forces—or lack thereof—which work for and against education on the federal front. Another is the popular but unrealistic notion that the federal government can exert leverage in a crisis and get things done quickly. From this misconception are born crash programs which bring as many problems as cures. Much of our federal educational legislation has been passed initially as temporary relief and continued and expanded for the general welfare. In defining cold war, Professor Marshall emphasizes and re-emphasizes the constancy of Soviet purpose along with its consistent wholeness of policy, whatever instruments are chosen for its pursuit. If schooling and training are supposed to be part of our national defense, it is high time that education should serve a functional purpose in national policy. To quote A. N. Whitehead: "If we wait for the necessities of action before we commence to arrange our ideas, in peace we shall have lost our trade, and in war we shall have lost the battle."

Are you *au courant*?
Take this loaded quiz and see.

20 correct is superior, 15-19 good, 10-14 fair, under 10—tsk, tsk. If you wish to quibble about answers—or questions—address Dr. Lazarus at 208 Sutton Hall, University of Texas, Austin 12. Not me.—The Editor

What's Your E.Q. (Educator's Quotient)?

By ARNOLD LAZARUS

1. "Continental Classroom" is primarily a (a) classroom on the continent of Europe, (b) program behind the Iron Curtain, (c) closed circuit program, (d) major network open circuit program, (e) UHF educational TV offering.

2. The best single predictor of general academic and business success is a high (a) I. Q., (b) average in high-school marks, (c) score in a science aptitude test, (d) score in a numbers aptitude test, (e) score in a verbal aptitude test.

3. Verbal achievement has been found to be the result primarily of wide and deep (a) reading, (b) writing, (c) speaking, (d) listening, (e) televiewing.

4. In grades 7-12 most class interruptions for drives and sales occur in (a) science, (b) math, (c) foreign language, (d) home economics, (e) English and social studies.

5. The central government which controls curriculum and instruction least of all is that of (a) the Soviet Union, (b) the United States, (c) Japan, (d) West Germany, (e) France.

6. In our public schools, in which we are trying to educate all the children, the widest and most numerous individual differences have been found in pupils' (a) socio-economic backgrounds, (b) religious beliefs (aside from denominational preference), (c) general interests, (d) general and special abilities, (e) races.

7. Among the following attributes, the ones most verifiable operationally and at the same time the most stable are (a) abilities of adolescents, (b) needs

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of adolescents, (c) interests of adolescents, (d) needs of teachers, (e) alternatives c and d.

8. The Rutgers Plan for utilization of teacher times provides, for better or worse, (a) one way of dealing with huge enrollments, (b) one way of involving students in writing weekly papers, (c) one day a week for individual conferences, (d) team teaching—aides, technicians, lay readers (e) all of these.

9. Many a teacher in a roomful gathered from various departments may not know what his colleagues are talking about. This confusion results from the fact that each discipline has developed a terminology of its own out of a more common vocabulary. The label for such terminologies is (a) jargon, (b) patois, (c) small talk, (d) euphemism, (e) *lingua franca.*

10. The term "developmental," as distinguished from "sequential," focuses upon the (a) teacher, (b) student, (c) profession, (d) subject, (e) instructional material.

11. The one item among the following that is *not* a *material of instruction* is (a) *Journeys in World Literature,* (b) a phonorecord of Dylan Thomas reading "Fern Hill," (c) a movie of Shaw's *Caesar and Cleopatra,* (d) a movie projector, (e) a test in reading comprehension.

12. Language is to symbol as communication is to (a) sign, (b) culture, (c) metaphor, (d) society, (e) context.

13. The *Skinner teaching machines* are built on the theory that a human being learns and retains skills best through the (a) prospect of success in a profession, (b) negative reinforcement of punishment, (c) positive power of immediate reinforcements, (d) positive transfer of training, (e) positive disciplining of discrete faculties.

14. To diagnose a student's potential in a target ("foreign") language, the primary measuring instrument is (a) an Otis test, (b) a Stanford-Binet, (c) an achievement test, (d) an interest inventory, (e) an aptitude test.

15. Pupils imitate a competent teacher who speaks the target language as his native tongue. Their learning habits embrace (a) cultural ambiente, (b) the aural-oral or audiolingual approach, (c) matched dependent behavior, (d) all of these, (e) none of these.

16. To *individualize instruction,* a teacher first makes an inventory of (a) objectives, (b) materials of instruction, (c) audio-visual equipment, (d) abilities of students, (e) methods of instruction.

17. Here is James Conant: "I have been especially impressed with the emphasis educators place on *reading ability* as one of the major criteria for *grouping.* . . . Of course, any grouping arrangement assumes differentiated materials and teaching methods." Conant would most likely nominate as the best sequence among the following: (a) grouping, testing, choosing materials and methods, (b) testing, grouping, choosing materials and methods, (c) choosing materials and methods, grouping, testing, (d) differentiating materials and methods, grouping, testing, (e) differentiating professional educators' diagnosis and that of professional submarine commanders.

18. At a conference a principal remarks, "In English our students are grouped by ability." This means (a) the English classes are prevailingly accelerated, (b) the English classes are prevailingly heterogeneous, (c) each English class contains three major ability groups, (d) the school has three tracks in English—say "red," "blue," and "green," (e) alternatives b and c.

19. *Block time* or *core* class describes a teaching situation in which (a) one teacher has the same pupils for two or more periods, (b) two or more teachers have the same pupils for one or more periods, (c) a "team" of teachers have the same class for one period, (d) lay readers correct papers for one block of students, (e) a given number of students serve time in one "cell."

20. A statement of fact is (a) a fact, (b) a fact that cannot be denied, (c) an assumption that cannot be inferred, (d) a statement that cannot be proved false, (e) a statement that can be operationally validated or invalidated.

21. Experimental evidence over the last fifty years (recently compiled by Ingrid Strom of Indiana University) points overwhelmingly to the conclusion that there is no significant transfer from classificatory grammar to (a) usage, (b) writing, (c) speaking, (d) reading, (e) vocabulary building.

22. The conclusion above implies, for better or worse, that (a) grammatical analysis should be abandoned altogether, (b) grammatical analysis should follow rather than precede writing, (c) grammatical analysis has value for its own sake, (d) the study of grammar should have some such practical application as improving one's writing, (e) pattern analysis has more transfer than has parsing.

23. *Inductive* teaching consists in (a) citing a rule, then giving an example, (b) giving some examples, then drawing—or having the students draw—the generalization, (c) citing a generalization but backing it up by numerous specimens, (d) all of these, (e) none of these.

24. To locate an article that has been widely reprinted in anthologies, the best bibliographical tool to use is (a) *The Readers' Guide,* (b) *Current Biography,* (c) *Book Review Digest,* (d) *Essay and General Index,* (e) *Information Please.*

25. According to *The Child Buyer,* our national crash programs for the gifted are designed primarily to develop (a) gifted youngsters, (b) poets, composers, physicians, and conquerors of disease, (c) statesmen, (d) good citizens through leadership of the gifted in heterogeneous classes, (e) technological arsenals against aggressor nations.

ANSWERS: 1 d, 2 c, 3 a, 4 e, 5 b, 6 d, 7 a, 8 e, 9 a, 10 b, 11 d, 12 a, 13 c, 14 e, 15 d, 16 d, 17 b, 18 d, 19 a, 20 e, 21 b, 22 d, 23 b, 24 d, 25 e.

An educational philosopher expresses his faith in 'real education' as the only rational tool of change

The Bases of Social Advancement

By FREDERICK MAYER

THE story of education is the story of mankind. It is the saga of wisdom and folly, achievement and regression, creativity and lethargy, enlightenment and superstition. The aims of education represent the bases of social advancement. In every generation, great educators, like Socrates, Epicurus, Comenius, Pestalozzi, Froebel, and James, have been in the vanguard of humanitarian causes and have made progress possible in man's relationship to himself and to society.

What should be the goals of education in our time? What should be its objectives? What should be its methods? These are significant questions, not merely for teachers and school administrators, but also for scientists, artists, statesmen, indeed for all reflective human beings.

In every period, education has to be re-evaluated and re-examined. If this is not done, a culture lag results and the schoolroom becomes only a minor footnote to life with teachers having little impact on the main events of their time. Thus in the 14th and 15th centuries, medieval scholars were still debating about minor points of theology, while the world outside was rapidly changing and while a new science was being developed which would make their debates obsolete. When Locke was attending Oxford in the 17th century, scholastic methods were still being used while he yearned for a stress upon biological science. Too often in history, education has been isolated from the main currents of civilization. This has resulted in lack of vitality and relevance in the educative process.

Bergson, in his notable work *Creative Evolution,* shows how change governs all aspects of human existence. Every moment presents us with a new challenge. We are never the same and our abiding identity is only a postulate of experience. Social change, especially today, is even more rapid. To ignore it and to say it has no meaning for education is to invite disaster for mankind.

In no field is change as rapid and breath-taking as in science. Indeed, more progress has been made in this field since the start of the 20th century than for the last 5,000 years. But scientists today are concerned about the direction of their inventions. Will they be used for destructive purposes? Will they contribute to the devastation of mankind? Will they create a new Leviathan which may make civilization more complex and more neurotic? Thus, scientists at conferences and through journals and books have been urgent and emphatic in their pleas for an educational system which shows the relationship between science and humanities, for they realize today that political issues have an immediate impact on their own researches and discoveries.

Artists in our society frequently feel a sense of alienation. They maintain that our taste is appalling and that, like the Romans, we tend to be exhibitionists and underrate creativity when it has no direct utilitarian consequences. A poet in our civilization ranks below the businessman, and there is a suspicion that anyone who is really concerned about art tends to be Bohemian. A classic voice of this viewpoint was Babbitt, in Lewis' great book, who admired successful artists because they made a great deal of money, but Babbitt had contempt for the dedicated artist who might live in an attic and who did not care for financial success and social approval.

Our esthetic dilemmas were anticipated by Shelley in 1821 when he wrote in *In Defense of Poetry*: "We have more moral, political, and historical wisdom than we know how to reduce into practice; we have more scientific and economical knowledge than can be accommodated to the just

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distribution of the produce which it multiplies. The poetry in these systems of thought is concealed by the accumulation of facts and calculating processes. There is no want of knowledge respecting what is wisest and best in morals, government, and political economy, or at least, what is wiser and better than what men now practice and endure. But we let *'I dare not'* wait upon *'I would,'* like the poor cat in the adage. We want the creative faculty to imagine that which we know; we want the generous impulse to act that which we imagine; we want the poetry of life: our calculations have outrun conception; we have eaten more than we can digest.

"The cultivation of those sciences which have enlarged the limits of the empire of man over the external world, has, for the want of the poetical faculty, proportionally circumscribed those of the internal world; and man, having enslaved the elements, remains himself a slave."

It might be pointed out that we have today more courses in poetry, painting, and sculpture, more interest in dramatics, more emphasis on musical appreciation, more support of symphonies, more buyers of classical records than at any time in our history. This is true; but a real passion for art, as we find for example in the Renaissance, is lacking. Los Angeles and New York are not like Florence in the 16th century, which regarded the painters, sculptors, and architects as its foremost citizens.

To create such a spirit a new type of education is needed. It implies a change of values; a transvaluation of ideals. It means that materialism must be regarded as a secondary value and that instead the realm of the spirit should be stressed. The arts thus must be cultivated in a far more intensive manner than ever before, from kindergarten to graduate school to adult education. They must not be confined to the museum; rather, they must become part and parcel of our everyday existence.

In the realm of politics, the changes of technology have had an immediate impact. Distant nations have become our next-door neighbors. The new weapons of warfare have created a common danger and a common frontier. Yet we confront this new world with the old attitudes of parochialism and isolationism. Our understanding of such vital areas as the Near East and the Far East and Africa tends to be limited. An eminent editor blasted his colleagues recently for playing up local events and for ignoring the main currents of foreign developments. During the Lebanon crisis, for example, several Los Angeles papers had headlines dealing with the waywardness of a prominent movie star. Our college students probably know more about ancient Egypt than about contemporary India and China. What is worse, we find often a feeling of apathy, a feeling of drift, of non-concern, as if events of today have been too overwhelming to be analyzed and comprehended. Most members of the "beat generation," both in the United States and Great Britain, feel utterly indifferent regarding political events. They can see only corruption; they are outsiders, as Kerouac and Wilson show in their works. They are concerned mainly with their own private worlds and with physical sensations; as for the improvement of mankind, this appears to them as a hopeless task.

Such indifference is dangerous. We have only to look at the fate of Rome, which declined at least partially because its ablest leaders lost a sense of responsibility and became escapists. The same happened in Germany before Hitler, when many intellectuals felt no sense of political involvement and instead left the political area to demagogues and fanatics. Indifference in politics is the prelude to totalitarianism. Freedom, as Jefferson showed so vividly, depends on a common concern and on the cultivation of reason. It has to be guarded in every generation, especially by those who have the vision to anticipate the frontiers of the future.

WAR AS AN AGENT OF CHANGE

IN the past, war has been a powerful agent of social change. Thus Heraclitus in Greece maintained that war is the father of all things. Empedocles asserted that love and strife are the fundamental motives of man, and apparently strife is more potent. Von Clausewitz saw all of sciences, politics, and economics as a reflection of man's warlike spirit. Nietzsche described man as a creature determined to achieve power and to overpower. Hitler felt that man's inner spirit was best revealed when he engaged in combat.

As we look with detachment at nature, we find a constant warfare between animals. The law of the jungle prevails. Darwin was correct when he described the struggle for existence as a biological fact. Man is probably the most bloodthirsty creature, for he kills deliberately and in our time scientifically.

Our sense of conscience is limited. Dorothy Thompson described guards of concentration camps who would burn thousands of victims and who would feel terrible if their children were hurt in a fight with their school comrades. When pictures of concentration camps were shown after World War II in Germany, many Germans

reacted by saying that it was the deed of a few and that they themselves had no responsibility.

This reminds me of a short story of two killers engaged in a deadly mission. They are professionals without a sense of conscience. On their way, they see a child run over by a reckless driver. They are agitated by this event. After they kill their victim, who had pleaded with them to spare his life, they do not feel a sense of wrongdoing. But they are indignant about the driver who has hurt the child and they want him to be severely punished for his misdeed.

Callousness is universal; sadism has no national frontier. For example, periodically we are shocked about juvenile delinquency. We read about outrages in our schools, assaults in our parks, gang fights with pistols. Then we become indignant about the young gangsters. Very seldom do we become indignant about the slums, the deprivation, the poverty, the lack of real education, which are fundamental causes of delinquency.

Every major city in the U. S. has its skid row. Thus in Los Angeles thousands of men and women live in the neighborhood of Main Street; they are usually extremely poor, victims of alcoholism, with no ties to their community. They are veritable human wrecks. We become conscious of them when they commit a major crime. On Thanksgiving and Christmas they will be given free meals as an indication of public charity. Only a few organizations, like the Salvation Army, will be really concerned about them; the rest of us will be indifferent.

The point is that war has not only external manifestations; it has more subtle symptoms. Delinquency and crime represent a war against society, or more precisely, society in a state of internal schizophrenia. Violence is a constant feature of modern life; we have only to look at the headlines of our newspapers, and we obtain a thrill from sadism. This explains the popularity of tough detective story writers like Spillane, and the impact of television westerns which feature a succession of acts of brutality.

Violence and war never solve problems; they only make them more acute. They create new dilemmas and new paradoxes. Thus World War I was fought by some to make the world safe for democracy; in our time democracy is less safe than ever. Every major war has resulted in more dictatorship and more totalitarianism and has created new seeds of conflict.

No Magic in Politics

Political change is certainly more desirable than change through war, but it offers no magic formula. Marxists predicted after 1917 the rise of a classless society in Russia, but it appears today that a rigid system exists in that nation. Indeed, three types of communist society are appearing in our time: one in Yugoslavia which seems to be more moderate; one in Russia which is in a state of flux; and one in China which is the most extreme, which features collectivism in action and which makes thought control a reality.

Political change depends on the personality of the leader who exercises control. Thus Stalin was less concerned about ideology and more intent upon personal power. He conducted purges which cost the lives of thousands of individuals who confessed to have committed crimes of which they were manifestly innocent. His slave labor camps included millions of human beings who were convicted without due process of law. *Darkness at Noon, Not by Bread Alone,* and *Doctor Zhivago* are eloquent documents of the despair which such a system creates.

Pasternak in *Doctor Zhivago* thus declares that those who speak of objective truth and the inevitable laws of history in reality are the most prejudiced, for they attempt, as Stalin did, to use the truth as a tool in their struggle for power. They are so concerned about ends and goals that they will use any means regardless of moral consequences.

Emerson in the United States aptly pointed out the dilemmas of politics. He maintained that he could join neither the conservatives nor the radicals. He disliked the conservatives because they placed property rights over human rights and he disliked the radical reformers because their leadership was often corrupt and second rate.

As Emerson remarked: "These reforms are our contemporaries; they are ourselves; our own light, and sight, and conscience; they only name the relation which subsists between us and the vicious institutions which they go to rectify. They are the simplest statements of man in these matters; the plain right and wrong. I cannot choose but allow and honor them. The impulse is good, and the theory; but the practice is less beautiful. The Reformers affirm the inward life, but they do not trust it, but use outward and vulgar means. They do not rely on precisely that strength which wins men to their cause; not on love, not on a principle, but on men, on multitudes, on circumstances, on money, on party; that is, on fear, on wrath, and pride. . . .

"The Reforms have their high origin in an ideal justice, but they do not retain the purity of an idea. They are quickly organized in some low, inadequate form, and present no more poetic

image to the mind than the evil tradition which they reprobated."[1]

Albert Camus in *The Rebel* shows how revolution creates an atmosphere of violence in which noble ideals are soon forgotten and thus the dictator emerges who has no concern for human rights and human dignity. Is not power a corroding force which makes integrity impossible? Are we not easily intoxicated by too much power and thus do we not develop a feeling of infallibility? Does not the man of power develop a cynical view of human nature?

Others might maintain that religion is the best method for social change. They may point to the impact of great leaders, like Jesus, Confucius, and Buddha, upon world civilization. Ghandi in India has inspired thousands with his ideals of non-violence. The social challenge of Jesus is as immediate and vivid in our time as it was in his period. When we think of the work of Schweitzer in Africa, Kagawa in Japan, and Niemoller in Germany, we can appreciate the perennial vitality of religious idealism.

However, as we all know, religion has often been a divisive force. Crusades, inquisitions, religious wars, have resulted in a tremendous toll and have negated high religious ideals. The Mid-East is in a deplorable state, partly because of religious tensions, revealed especially in the antagonism of the Moslems toward the Jews. Moreover, the feeling of exclusiveness which some denominations encourage makes real universalism and understanding extremely difficult. No wonder that Comte de Volney regarded religion as a regressive force, and that in our time Russell refuses the certainty of a traditional faith. Croce, one of the great Italian thinkers, substituted philosophical knowledge for religious aspirations; to him religion was "a transitory historical fact." And Sartre declares that the primary fact of life is human existence without God in which man creates his own values.

Still, religious idealism has lasting consequences. The great reformers of education, like Comenius, Pestalozzi, and Froebel, were inspired by religious concepts. Thus Comenius, a follower of Huss, wanted a system of education which would create Christ-like individuals who would make the kingdom of God a reality. Pestalozzi worked among the poor, especially orphans, because he had a sense of spiritual obligation. And Froebel, who believed in the goodness of God and in the fundamental unity of existence, believed that man had to reveal the providence of God through educational reforms. To him nature was an expression of divine activity; all of life had religious significance. The teacher thus mediated between God and man, between ideal and actuality.

[1] *Lecture on the Times.*

EDUCATION MOST EFFECTIVE TOOL FOR SOCIAL CHANGE

IN reality, as we survey history, education is the most effective tool for social change. It creates lasting attitudes and appeals not only to the heart, but also to our intellectual powers. In indicating our own potentialities, it creates lasting ties between us and our neighbors. It overcomes the idols of the tribe and the market-place. It replaces superstition with science, vague belief with the evidence of facts.

Education, too, has been frequently misused. For some it has been only an experience in minute scholarship; for others it has been a mere ornamentation. For many it has been an empty ritual which has made them arrogant. Entire nations, like Nazi Germany, Italy under Mussolini, and Japan before World War II, have established educational systems which became models of prejudice and narrow nationalism. Certainly, education can be the prelude to death as well as to life. Ultimately, no slavery is as tormenting as the slavery of the mind.

Great 19th century reformers like Horace Mann, who agitated so powerfully and with such dedication for universal education, would not be entirely satisfied with the results of their labors. To be sure, we almost have universal education today in this nation, but it has not resulted in greatness, rather too often in mediocrity and conformity. Education can create individuality and enlightenment; it can also create subtle biases. It can be a superstructure for our tribal prejudices.

But we must remember that universal education has not been achieved. Even in this nation there are millions of illiterates. What is worse, there are millions living in a twilight zone of semi-literacy. As Laubach reminds us, almost half of the population of the world does not know the fundamental elements of reading, writing, and arithmetic.

Moreover, our investment in education has been minor compared with our investment in war. Walter Lippmann tells us that unless we make a more concentrated investment in our schools, we may experience a spiritual Pearl Harbor. We all know that we spend a great deal more on amusements, even on tobacco and alcohol, than on education.

The main problem of education is not intellectual; it is the problem of human existence. How

should we live? How should we look upon society? How should we act? What should be our aspirations? What should be our final goals? What is to be our vocation? These are the perennial problems of education, which fails unless it is applied to the realm of actuality and unless it creates lasting changes in man's behavior.

Real education, then, belongs to the future; most of our education is a form of tribal conditioning, a pilgrimage in routine and premature adjustment. When education stirs our innermost feelings and loyalties, when it awakens us from the slumber of lethargy, when it brings individuals together through understanding and compassion, it becomes our foremost hope for lasting greatness.

In *Brothers Karamazov* we read: "Everyone is really responsible to all men for all and everything." This ideal should be the motto for the educated man of our time, who can find himself only by transcending a feeling of futility and only by seeing the bonds which unite him to his neighbor and to the universe.

Who Are 'Masters of Our Schools'?

The January 9 *New Republic*, in an article titled "Masters of Our Schools," says, "If educators have their way—and John Kennedy's record suggests that they may—the Federal Government will be spending considerably more money on public education this year than it did in 1960. But even among educators, and liberal legislators who support them, the question of how this money should be spent and who ultimately will be the schools' masters remains a topic for heated disagreement."

Other highlights of the article: " . . . the 1958 National Defense Education Act chose to subsidize specific neglected areas of the educational endeavor, rather than offering no-strings-attached grants to local and state authorities. Anyone who has watched a school board or state legislature at work will share the Congressmen's view that these groups, given a free hand, would never have spent their money on the schemes which expert testimony indicated were necessary for the national welfare. After all, what local community cares to underwrite research which, even if successful, will only pay off over decades, and then on a national scale? And few local communities care to spend millions of dollars on something like the teaching of foreign languages, which will be primarily important to people who move elsewhere, either overseas or to the cosmopolitan centers.

"In theory, of course, Federal support for a particular line of activity need not constitute intervention. The advocates of Federal aid for school construction, for instance, argue that their bill would free local funds to improve teachers' wages. But in practice things do not seem to work out that way. Federal expenditures for science could have freed other endowments for the humanists, but what actually happened was that the universities also spent more of their own endowments on science, hoping to build up big research centers which would then get even more government contracts. And while it is true that school boards freed from financing new buildings would be able to use additional taxes solely for their teachers, it is equally likely that they would use them for the upkeep of communal monuments erected with Federal funds.

" . . . if Congressional appropriations lead sooner or later to Congressional control, does it follow, as everyone seems to assume, that this is undesirable, much less disastrous? Americans are still shackled by the Jeffersonian untruth that the best government governs least, and that central government is worst of all. Yet the vision of creeping totalitarianism has very little historical or sociological justification. Totalitarianism does not creep, it leaps. Dictators do not emerge gradually from an ever more powerful state, but suddenly from a feeble and anarchic one. . . .

"It is important to realize that national control of anything normally means professional control by experts. Even the most hot-blooded and power-hungry Congress cannot run a school system. It must rely on a bureaucracy to do so. In European countries, where the schools are administered by central Departments of Education, effective direction is in the hands of educators, who either advise or become the bureaucrats in the central office. The resulting loss of local control over local schools has many disadvantages. . . . But the one advantage which stands out from European experience with nationalized systems is that it encourages, rather than discourages, classroom freedom. The local DAR can coerce the Jonesville school board into banning books on the UN, and perhaps the local clergy can monitor classroom discussions of sex, but no English Empire Loyalist can make Whitehall drop books by Barbara Ward if a teacher wants to use them. . . .

"Bureaucracy is not just a social cancer, spreading without reason or benefit. Bureaucracies arise because, on the whole, they are more efficient, more reasonable, and more equitable than the networks of personal influence which they replace. . . . Compared with the self-appointed guardians of the public weal who dominate state legislatures and local school boards, Capitol Hill looks like a center of expertise and altruism. The tradition of the New England town meeting which still haunts the national imagination wherever 'local control' is mentioned bears little resemblance to the conventions of local fatcats to whom we are actually entrusting our children's future. It is time Congress stopped acting as if it were reprehensible to assume educational responsibilities which others neglect."

A famous linguist, E. H. Sturtevant, wryly suggests that "the most efficient as well as the easiest way to improve the situation [in reading and spelling] would be the complete cessation of the teaching of spelling."* But there is a small group in America which still hopes we can muster the will to reform our illogical system. Mrs. Bowyer is a spirited representative of this group.—The Editor

Not Back to Phonics— *FORWARD TO PHONETICS!*

By HELEN BOWYER

WHY make a problem out of reading? At least so far as word recognition goes. Why not undercut the whole time-waste of "isle, style, mile, guile"—the memory burden of "meter, liter, heater, teeter"—the reason-flouting of "since, rinse—sense, scent—cent, sent"? It could be done with a system of sound-sign relationships at least as teachable as that through which Russia expedites the education of her young.

One such system is World English, which America's Simpler Spelling Association and its British ally have so long been offering.

You can try it out in the demonstration (slightly modified) which follows. Pronounce *ae, ee, ie, oe, oo* as in *maelstrom, fee, fie, foe, fool—aa* and *au* as in *bazaar* and *bauble—uu* and *ou* as in *put* and *pout*—italicized *th* as in *thin* and *both—zh* as in *pleasure* or *Persian.* Give all other letters and digraphs their most common present values, but notice that short *i* supplants *y* in such words as *perfectly* and that *t* and *z* supplant *d* and *s* wherever they more truly represent the sound.

"Yoo aar oeld, Faathur Wilym," the yung man sed,
"And yoor haer haz bekum veri hwiet,
And yet yoo insesntli stand on yoor hed,
Doo yoo *th*ink at yoor aej it iz riet?"
"In mie yoo*th*," Faathur Wilym replied too hiz sun,
"Ie feerd it miet injur the braen,
"But now that Ei'm purfektli shoor Ei hav nun,
Hwie Ei doo it agen and agen."

"Buuli for him," chortld oeld Paul Hoil, kiking wun Purzhn slipur tordz the seeling, the uther *th*roo the dor.

Here in eighty-three words we have forty basic spelling units matched one-to-one with the forty basic sounds of our American speech. Together they constitute an alphabet as consistent and predictable as that through which the Soviet Union manages to have its children *reading* by Christmas of their first school year.[1] That it holds a similar promise for us is demonstrated daily through those missionary fields of Asia, Africa, and the islands of the seas where the Committee for World Literacy actively pursues its work. It uses this system, or a close approximation, in the beginning teaching of English. The committee's showing puts to shame our traditional system with its traditional spelling.

World English is not the only system actively engaged in providing one character and *one only* for each separate sound of our mother tongue. We have only to open our desk dictionary to find another literally staring us in the face. What do I do when I need to know whether the *ch* of *Eustachian* is that of *ache* or *aitch* (h)? Or whether *sophist* starts off with the vowel sound of *soap* or *sop?* Just what you do when you are not too certain about the beginning *X* of *Xanthippe,* her midriff *th,* or her final *e.* You look at the parenthesis after her entry and find that, at least among us barbarians, she is to be called Zantipē. And I hope that on this or some other such occasion you felt something of the exasperation of that sound-headed tenth-grader of mine who exploded into: "Why ain't they wrote that way in the first place? Why does a feller have to fool around with two spellings for one word?"

Why, indeed? Especially as he would only have to cross a bridge at El Paso or Brownsville to find

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* As quoted in "How To Be a Perfect Speller," Rudolf Flesch, *Saturday Review,* January 14, 1961.

[1] Soviet first graders start, of course, at age 7. Many are already reading well. Some learn in kindergarten, but more pick it up for themselves, according to Deana Leven, an English authority who taught for five years in a Moscow school. She says, "Russian is so nearly phonemic that children can and do learn to read in two or three months with very little adult help, once they know the alphabet."

himself in a world where a feller has to learn but one spelling. And that so simple and consistent he can all but automatically pronounce the whole vast vocabulary of his native *idioma,* just by application of the alphabet he learned way back in the early weeks of his first school year. It is a world where, in consequence, a seventeen-year-old graduates from his *Preparatoria* a good two years beyond his U. S. age-mates in almost every study which demands an easy and accurate command of the printed word. And a world, be it added, of twenty hemispheral allies whose respect for our culture we can ill afford to lose.

Our various dictionaries differ somewhat as to the symbols of their second spelling system, but as to its necessity they are at one. Says the *Funk & Wagnalls* unabridged (p. xxiii), "That we should be compelled to respell words in order to show how they are pronounced is a pity and an absurdity, since the original and proper function of spelling is to do that very thing. The maker of a German or Italian or Spanish dictionary has rarely any need to respell a word in order to tell his own countrymen how the word is pronounced. But in English the necessity exists and must continue to exist as long as our so-called orthography continues on its present footing. Hence arises the problem of a scientific alphabet."

There was a time when the National Education Association was acutely conscious of this problem. Way back in 1903 its Department of Superintendence called a conference to seek a solution. Together with the American Philological Association and the Foreign Language Society, it organized a committee which eventually produced the alphabet which, with some modifications, still appears in the *Funk & Wagnalls* unabridged dictionary as Key I to its respellings. But any hope the N.E.A. may then have entertained that this alphabet would come into general use was doomed from the start by the diacritics used to indicate the value of its vowels. These diacritics, to a greater or lesser extent, still cripple today's dictionaries, even those compiled for the fourth and fifth grader. When a nine-year-old turns to his Thorndike for the pronunciation of *falcon, urge, ruthless,* why should he be faced with the strangeness of *fȏkən, ėrj, rüthlis,* when the familiar *faukn, urj, roothles* not only portray their sounds as well, but give him a sense of at-homeness in his dictionary which would lead to a more frequent and pleasurable use thereof?

Perhaps the greatest single service the N.E.A. could now render in the reading area would be to authorize a series of school dictionaries making this simple change. It would be almost the only change needed to bring most dictionaries to an all-Roman letter key of maximum simplicity and trustworthiness. Their consonants are already close to that ideal. Like World English, they discard *c, q, x,* turning their redundant functions over to the perfectly able letters herewith indicated: *s*istern, *k*up—brus*k*, *kw*it—a*ks*is, eg*z*it, *Z*eno. Like W. E. too, they keep unchanged the digraph *sh* but deprive *ch* of its prerogatives in *ch*imera and *ch*auffer. Again, they add a second *th* to differentiate between *th*in and *th*en, and *zh* to represent the soft sibilant of plea*s*ure, rou*g*e, Per*s*ian. And all join World English in eschewing the double consonant, as such, and dropping all those silent letters which falsify pronunciation in such words as "lim*b*, e*dg*e, sig*n*, *gh*ost, *h*onor, ca*lf*, *m*nemonic, solem*n*, *p*seudo, deme*s*ne, lis*t*en, *w*rite." Moreover, all confine *y* to its purely consonantal function, as in *yet* and *banyan,* and respell *lyric, ugly, pity* as *lirik, ugli, piti.*

In short, with little more than a Romanizing of their parenthetic vowels, our dictionaries could not only facilitate a greater and more pleasurable resort to their pages but could provide young America with advance preparation for that inevitable day when our spelling will no longer be "a pity and an absurdity"—when, as in that Latin world just across a bridge from Brownsville or El Paso, the entry will take care of its own pronunciation and mere application of one's first-grade alphabet will ensure correct spelling of every native word one writes, from *aardvark* to *Zyzzogeton.* And when, in consequence, our Johnny will finish his eleventh grade neck and neck with Juanito in every subject which demands effortless command of the mechanics of reading.

Do we really have to go through a "back to phonics" era before we permit that day to dawn? We tried phonics for over three centuries. When, in all that time, were the bulk of our school children reading before Christmas of their first school year? Or even by June? Not in 1768, certainly—else why would Benjamin Franklin write: "Whatever the difficulties and inconveniences of changing our spelling are, they will be more easily surmounted now than hereafter. Sometime or other it must be done or our language will become the same with Chinese as to difficulty of learning and writing it."

Nor, certainly, in 1878, when a meeting of ten thousand teachers, led by professors from fifty leading colleges and universities, sponsored a memorandum to Congress which read, in part: "It is currently stated by leading educators that the irregular spelling of the English language causes a loss of two years of the school life of

each child, and is a main cause of the alarming illiteracy of our people."

Nor when Andrew D. White was president of Cornell. Else why would he have lashed out at "the fearful waste of time on the part of millions of our children in learning the most illogical mode of spelling, probably, that this world has ever seen; the only result being to weary them of books and blunt their reasoning faculties."

Nor in 1906, when Theodore Roosevelt made his gallant attempt to bring the beginning of rational spelling into the Government Printing Office.

And even less in the late 1920's, else why the nationwide junking of the phonic method and the nationwide substitution of the whole word tactic?

If that has proved a jump from the frying pan into the fire, it doesn't alter the fact that the frying pan was a bad place to be and not one to jump back into. And it's no use saying the pan has been so improved it is practically a new utensil. I've glanced through most of the recent "how to" books which make this claim, and not even with a powerful glass can I see any essential difference between their handling of "does, dozen, cousin—us, bus, fuss—has, gas, pass" and the method on which I grew up and taught in my teacher-training days. Which one of them reduces by a single item the 250 spelling units in which our forty basic speech sounds are awash? Which deals more effectively with the scatter-brained transcripts of our simple *f* sound now cavorting through "if, staff, giraffe, graph, laugh, calf?" Or with *f* and *gh,* which compound the disorder by ousting *v* and *p* from *of* and *hiccough?* Or with *gh,* which muscles in on *through, naught,* et al. without performing the shadow of a service today?

Is there a back-to-phonics proponent from Maine to California who could look a second-grader in the face and tell him these words are as easy to read, write, and spell as would be their simplifications into "staf, jiraf, graf, laf, kaf, ov, hikup, throo, naut?" Or assure a worried parent that after four years of phonic training his offspring will be getting more out of his future history texts if they are strewn with "monarch, foreign, usurp, allegience, villeinage, demesne, ecclesiastic" rather than "monark, foren, yoozurp, aleejens, vilenaj, demeen, ekleeziastik"—and if all words between were spelt in conformity with these last?

At least Rudolf Flesch, whose *Why Johnny Can't Read* started the jump back into the frying pan, couldn't do it. He makes no bones about the fact that while the pan is preferable to the fire, there's an incomparably better place to be than either. Speaking of the world-famous Dr. Frank Laubach of the missionary Committee for World Literacy, Flesch tells us: "He always starts by working out a phonetic alphabet for the language he is dealing with and then teaches the natives in very short order how to read and write it. Yes, if you have a language with a perfectly phonetic alphabet, you are in a sort of dream world where teaching to read and write is no problem at all. This is [all but] true, for instance, in Spanish, Finnish, Czech. . . . But let's get back from this dream world to the harsh reality of English."

The pertinent question is, Why should there be a harsh reality to get back to? Who or what imposes it upon us? What is there in our Bible or our Constitution which obligates us to retard our children's education with 250 chameleon spellings for their forty speech sounds? What hypnosis makes us waste the time and blunt the reason of our first-graders on "who, do, you, two, blue, flew, shoe, through," when the rhyme word *too* points an obvious way out? And why must we hold sacrosanct the classic elements of *philosophy, pseudo,* and *zephyr* when Spanish, chief heiress of the Latin tongue, spells them *filosofia, seudo, cefiro?*

Whence came the good sense of these exemplary Spanish simplifications? From just such scholarly initiative (some will be surprised to learn) as our English spelling cries for today. By 1714, Spain's now lovely *Castellano* had sunk to a literary low which dismayed the proud and patriotic Marques de Villena. Not being a man to endure what he could cure, the Marques persuaded his sovereign, Philip V, to found a Royal Academy "to watch over the purity and proper use of the Castilian tongue."

That watch has been maintained to this hour—and over nothing more vigilantly than the consonance of Spanish sounds and symbols. And not only in peninsular Spain. The Hispanic world across our international bridges was to remain, for another century or more, a conglomerate of Spanish colonies of widely differing geography and differing Indian backgrounds and admixtures, largely isolated from each other and the outside world. Surely these were conditions conducive to spelling chaos as serious as ours. But the great *Diccionario* of the Royal Academy became the orthographic bible of what literate population the colonies had, and it remained the highest authority of the independent nations into which they evolved. Though each has now its own national academy, their members are *correspondientes* of the mother institution and collaborate with its *academicos* in guarding the purity and proper use of the simple,

sane, and gracious speech which binds their *patrias* together.

This is a collaboration which goes far to explain why, from Madrid to Santiago de Chile, Juanito and his sister master the mechanics of reading well within their first school year. They early pass on to levels of literature, composition, history, and geography impossible to *Yanqui* grademates bogged down with "daughter, laughter—hoard, chord, sword—rhyme, climb—indict, delight—whole, soul, stroll, bowl, goal."

Wouldn't you say we need a comparable academy? Or a national language commission such as that proposed by the Hagen Bill? Copies and explanatory material about the latter may be obtained from the Sub-Committee on Special Education of the House of Representatives. Interest in the bill is growing.

BOOKS

for leaders

The Case Study Method in Reconciling Theory, Practice

CASE STUDIES FOR SOCIAL FOUNDATIONS OF AMERICAN EDUCATION, by Harry S. Broudy. Danville, Ill.: Interstate, 1960. 91 pp. $.80. Reviewed by Irwin Widen (Lambda 1546, Nu Field), *master teacher,* Jirka School, Chicago 8, Ill.

THIS book examines the following subjects: (1) the conflict between state authorities and members of the Amish sect over compulsory education, (2) the furor in Brookline regarding the teaching of handwriting, (3) the social and academic structure of an independent secondary school, (4) the Little Rock desegregation struggle, (5) the controversy about "released time" for religious education, (6) the challenge to the Pennsylvania "Bible reading" statute, (7) the nation's post-Sputnik educational soul-searching, (8) the subversion scare in the schools of Scarsdale, and (9) the debate concerning a proposed federal health-insurance program.

While this book was prepared for use in the college course in social foundations of education, its value need by no means be limited to campus classrooms. All of these cases are worthy of the understanding of the most practical of schoolmen; and this schoolman suggests that many of his colleagues will find, as he did, much to learn in these few pages. A number of the "guide questions" raised by the author should serve as effective stimulants to more profound thought.

In the main, the book is well written. Its language is straightforward and its manner dispassionate. Its quality could have been improved, however, by more careful attention to detail. Three examples of carelessness will be cited here. Although several of the guide questions make specific reference to the textbook which this book is designed to supplement, nowhere in this book is the *name* of that textbook revealed. (The text is *Social Foundations of Education* by Stanley and associates, published by Dryden.) While not a very significant error in itself, the statement on page 34 regarding the expulsion in 1958 of a Negro boy from Little Rock's Central High School (when in actuality the expelled student was a girl) may cast a shadow of doubt in some skeptical minds as to the accuracy of the book's other statements of fact. The misquotation of the First Amendment on page 46 to read "Congress shall make no law respecting *the* establishment of religion . . . " when it should read " . . . *an* establishment of religion . . . " [italics by reviewer] is in reality a mistake more serious than its trivial surface appearance, for the McCollum "released time" decision hung substantially upon the Supreme Court's interpretation as to the precise meaning of this famous clause.

It is the reviewer's understanding from conversation with the author that a revised and enlarged edition of this book is already being planned. That is fortunate, for the case-study approach, which can be of great value in aiding the difficult reconciliation of theory and practice, is deserving of very careful treatment, and several additional cases suggest themselves as deserving of inclusion. The author, who is a professor at the University of Illinois and an educational philosopher and writer of eminence, has done a good job but could do better. He has kicked a field goal at a time when our society and our profession need more than three points. One looks forward to seeing on Dr. Broudy's next try the touchdown that is appropriate to his talent.

A Carefully Worked Out Plan for Constructive Action

EDUCATION AND THE HUMAN QUEST, by Herbert A. Thelen. New York: Harper and Brothers, 1960. 224 pp. $2.75. Reviewed by ARTHUR LERNER, Psychology Department, Los Angeles City College.

TODAY educators can no longer afford the luxury of passing off serious comments with a wait-and-see attitude, especially when constructive criticism comes from such a knowledgeable student of education as Dr. Thelen. His outlook in this book is based upon the belief that education is at least a half century behind the social sciences. Such a

cultural lag is not merely serious, it is basically immoral. To act in a manner contrary to the dictates of available knowledge is a crime. With honesty and simplicity, Dr. Thelen presents a carefully worked out plan for constructive action.

Many of the ideas presented here have seen their baptism of fire in various community and University of Chicago projects. Since much of our difficulty in improving the schools grows out of the nature and complexity of the society of which they are part, we must think our way through to better social concepts. We must, according to Dr. Thelen, come to grips with four major issues.

The first issue relates to education of the child in terms of "influences." These are the school, the family, the peer group, and contacts with events and people in the community. Re-thinking the part each of these plays, and their interrelationships, is of the most vital importance.

The second issue concerns statements of educational objectives. These are generally reduced to two, reflecting the biological and social nature of man. If we seek maximum realization of human potentialities and the development of an informed citizenry which maintains a society full of its contemporary possibilities, the question becomes one of finding a balancing point between intellectual and social-emotional development.

The third issue relates to the accumulated knowledge and experience of mankind. Is there a permanent reservoir of true knowledge, or is there only a provisional storehouse of information which each generation must re-discover or re-work? What, in other words, is the meaning of "absolute" as distinguished from "relative" truth?

The final issue refers to the American dream of "equal educational opportunity for all." What, exactly, does this mean? Does it imply the same exposure to knowledge, or are individual needs and capabilities to be taken into account? What about teachers and finances? How are these to be distributed?

Using the above issues as frames of reference, Dr. Thelen proceeds to fundamental inquiry about the human being, knowledge, and the relationship of education to society. And just as a good baseball manager utilizes spring training to re-acquaint veterans with hitting, bunting, base-running, and fielding, the author asks educators to re-examine basic assumptions which have long been the guiding directives for workers in the field.

A detailed account of what the author proposes would not do justice to *Education and the Human Quest,* which is written with a special style, immediacy, and zest uncommon in educational writing. We can only suggest that you put it on your "must read" list this year.

Speak French? Like Chaos? Then Here's an Opportunity

► The NEA Committee on International Relations is cooperating with UNESCO and the State Department to recruit 500 French-speaking educators for posts in the Ministry of Education in Leopoldville, Republic of Congo. The UNESCO recruitment drive is international and the NEA, as a member of the World Confederation of Organizations of the Teaching Profession, is helping recruit American personnel.

In addition to tax-exempt base salaries, which vary according to position, $20 per diem is paid, plus a $100 allowance for tropical clothing. Applicants must possess a command of French sufficiently fluent to enable them to conduct classroom instruction in that language.

Persons selected will be required to give intensive training to Congolese counterpart personnel. Duration of the mission is one year. Family allowances will be granted, but dependents may not accompany personnel.

American applicants should address Paul R. Serey, Staffing Management Officer, Office of International Administration, Department of State, Washington 25, D. C., enclosing a summary of experience and evidence of linguistic proficiency. Final selection will be made by UNESCO.

New North Carolina Governor Won on Education Platform

► "Education is the foundation of economic improvement, of democracy, of the needs and hopes of the nation. Education, put in the bleakest terms, is survival. In its brightest terms, it is life, and growth, and happiness."

These are the words of Terry Sanford, newly elected governor of North Carolina. Called North Carolina's "education governor" by one schoolman, Sanford's platform asked for more teachers and training for retarded children, special opportunities for gifted children, school consolidations, state aid for financially strapped counties, teacher and administrative salary increases, expanded scholarships for future teachers, state aid on in-service training, reduction of class sizes, and more and better teaching tools. Sanford proposed a state school bond issue for construction. Also, he promised to raise taxes, if necessary, to meet these educational goals.

Volunteers for 'Higher Horizons'

► More than 100 undergraduates of Columbia and Barnard Colleges have volunteered to become "assistant educators" in upper Manhattan elementary and junior high schools as part of the New York "Higher Horizons Project."

AUTOMATED GROUPING

By SIDNEY P. ROLLINS

EXPLICIT in the philosophy expounded by public secondary school people, almost always, is a paean to the worth of "the individual." This is usually accompanied by a solemn pledge to cherish "individual differences"—that is, to provide for each youngster a curriculum which is best for him. Listening to the professional, an innocent might believe that through some mysterious process each youngster is offered an individualized curriculum suited to his interests, his needs, and his abilities. This is, indeed, an excellent and an important aim. But alas, it is too often true that the phrase "individual differences" becomes what Barzun has called a *thought cliché* —a nice idea. In practice the pupil is fitted into a preconceived curriculum. And there he remains.

Of course educators have made many serious attempts to individualize the curriculum. On the basis of careful testing and teacher analysis, pupils are "grouped" into "tracks." These tracks usually number from two to four, their intent being to place the pupil with other pupils of similar abilities. This idea is sometimes extended until as many as seven or eight different groups are manufactured (most often in English and the social studies) with the same intent—to place the pupil within groups of youngsters with similar abilities. Unfortunately, most youngsters' abilities vary from one subject field to the next, so that a youngster in one of the "top" groups in English may have difficulty in mastering mathematics.

Educators have made some serious attempts to solve this problem too. Pupils are occasionally grouped according to their measured abilities in *each* of the subject fields. In this manner a pupil may work with a "top" group in English, and an "average" group in mathematics. This more nearly approaches the philosophical ideal. But the fact remains that the groups themselves have been preconceived, thereby limiting the number of possibilities for individualization to the number of groups which have been organized in advance.

In defense of secondary school administrators, it must be admitted that until quite recently, as our school curricula are organized, little else was feasible. To build a curriculum for each youngster involves an horrendous task of record-keeping, for it requires a continuous knowledge of the achievement of every individual in the school. But we no longer have the excuse that the record-keeping is impracticable, because the means of obtaining continuous checks on each pupil in each subject field are now available. And that brings us to the title of this article, "Automated Grouping."

An experiment in the use of IBM equipment for developing an individual curriculum for each pupil is in progress in the new six-year secondary school in Middletown, Rhode Island. This experiment is one aspect of the development of a total program for the Middletown School, which will open in September, 1961. The development of the total program, named the Middletown Project, is supported in part by a $20,000 grant from the Fund for the Advancement of Education and in part by a $10,000 grant from the town of Middletown to Rhode Island College, which provides the services of the project director.

The automated grouping experiment was a natural and concurrent outgrowth of the plan of curriculum organization developed through the Middletown Project. Investigation of means to implement curriculum plans seemed to indicate that electronic equipment offers many opportunities for adaptation to the problems of pupil scheduling and data-processing in the secondary schools. Unlike industry, public educational institutions have been slow to make use of electronic equipment. The IBM Corporation has produced ma-

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chine systems which can be utilized in the schools, however, and new ideas in curriculum construction have been made feasible.

In Middletown the curriculum has been organized in terms of six or seven years of a subject field, rather than in terms of specific "courses." The content in each of the subject fields has been developed into a sequential pattern. All of the learning experiences to which a pupil is exposed during his career in the secondary school are identified; then they are taught in logical sequence. It is expected, of course, that the sequence will be evaluated (and probably modified) continuously.

Those staff members who developed the curriculum in each subject field first determined, with the help of the community, the administration, and qualified consultants, the purposes of teaching their particular subject fields. The teachers developing the curriculum then selected content which, consistent with their knowledge of their subjects and their knowledge of child growth and development, appeared to contribute to the achievement of these purposes. Naturally, traditional content which did not appear to contribute to the achievement of purposes was omitted. The sequence of curriculum content was organized on the basis of what each pupil requires, rather than in terms of a sequence into which each child grows as each calendar year passes.

It is quite possible for a pupil in what is ordinarily the ninth grade to need experiences which he usually meets in the eleventh grade, and automated grouping makes it possible for this particular pupil to study at what usually is called the eleventh grade level. (The reverse is also possible, and is just as likely to occur.) This means that a curriculum is developed for each child, as opposed to the generally accepted practice of placing a child in a prescribed curriculum.

This is the way automated grouping works: Skills, understandings, and concepts, having been identified, are listed sequentially. Those skills, understandings, and concepts which an individual pupil has not yet mastered are punched on the pupil's IBM card for each subject. Coding the items, once they have been placed in sequence, is a relatively simple matter. By using a sorter, it is possible to group pupils on the basis of those elements of a subject field which they have not yet learned. These groups are organized into classes and assigned to teachers who are already aware of the needs of the pupils in their classes. In this way the pupil's progress is measured in terms of what he has learned rather than in terms of the number of courses he has passed. A quick look at a pupil's IBM card reveals at once what he has already learned and what remains to be learned.

For each subject field there will be as many groups as the total enrollment in that subject field divided by 25—the average number of pupils in a standard class. Hypothetically, each class may be at a different point on the sequential continuum for each subject field. It is possible, too, but extremely unlikely, that all of the classes may be at-

Here are some questions on automated grouping with answers by Mr. Rollins:

Q. *Do you know now what the additional costs of installing and maintaining automated grouping will be?*

A. Not exactly. IBM equipment will be used for many other purposes (census, payroll, guidance, pupil records, grading, etc.). Because of this it will be difficult to obtain a breakdown to show cost for automated grouping. Rental of the required machines will run about $450 per month. We do not know now what salary we will have to pay an operator.

Q. *How large a system or school must one have in order for automated grouping to be feasible and economical?*

A. The Middletown Six-Year Secondary School will house 1,200 pupils. We do not consider the cost exorbitant for this size school. However, there are other ways to preserve the basic idea of automated grouping. In small schools where record-keeping is a lesser problem, other devices, such as the McBee Keysort cards, can be used.

Q. *Have you considered the possible psychological disadvantages of breaking up old groups and forming new ones each semester?*

A. Yes. Until fairly recently, secondary schools adjusted the schedules of individual pupils twice yearly (which was the reason for January graduations). Keeping secondary school youngsters in one class for a whole year is a relatively recent innovation. We have found little evidence to indicate specific psychological disadvantages in breaking up old groups and forming new ones each semester. J. Wayne Wrightstone writes, "Data regarding the effects of ability grouping upon personal characteristics are so inadequate or subjective in character that no valid conclusions can be drawn."[1]

Mr. Rollins welcomes questions and suggestions. Send them to the Graduate Office, Rhode Island College, Providence 8, R. I.

[1] In *Class Organization for Instruction* (Washington, D. C.: Dept. of Classroom Teachers, American Educational Research Association, NEA, Bulletin 13, May, 1957), p. 8.

tempting to learn material at the same point on the sequential continuum. What is important, here, is that automated grouping is based on the achievement of the youngsters, and not on any preconceived grouping system.

Pupils within each class must be given an opportunity to progress at their own speeds. Clearly, automated grouping by itself does not eliminate the responsibility of the teacher to concern himself with the differences which will appear among pupils in a particular classroom. Each teacher must encourage and stimulate each pupil to learn as much as he is capable of learning. As each semester terminates, each pupil will be re-scheduled on the basis of his progress during the past semester. Under ideal conditions there would be a constant evaluation of a pupil's work, and as he gained competencies he could be re-grouped into another class. Presently, however, it is possible to evaluate pupils only twice each year.

The idea of automated grouping is based on the premise that it is possible to place into a logical sequence all of the experiences to which pupils are exposed in each of the subject fields. In Middletown, we think that it is possible. We think, too, that an intelligent, considered organization of content into an articulated sequential pattern is preferable.

The Middletown Public Schools are committed to a genuine consideration of differences among individuals, and to the development of a curriculum organization which will, in fact, provide individual programs for each pupil. Automated grouping is one of the means adopted to fulfill this commitment.

How Important Are Education Courses?

A Second Look at the Albrecht Study

By F. R. McKENNA

PROFESSIONAL pollsters claim that any question can be so framed as to elicit any kind of answer the questioner wants. When the questioner is also able to exploit a highly charged emotional climate, manipulation is even easier. Gustav Albrecht has evidently taken advantage of this in framing some of the questions for his teacher opinion survey summarized in the December PHI DELTA KAPPAN. The most conspicuous example may be noted in his questions relating to education courses. As the springboard for my comments, I shall use the first one: "How important do you believe the education courses you took to obtain your credential were in making you an effective teacher?"

Briefly stated, the justification for education courses is that they offer to teacher trainees knowledge, attitudes, and skills which will help in directing, motivating, and evaluating learning. If 49.3 per cent of California's high-school teachers say their education courses were of little or no importance in providing such help, there may be several reasons. Let us examine some of the possibilities:

1. All their education courses were ineffectively taught. If so, this is evidence that California colleges and universities do not do well in choosing their professors. If education professors are poorly chosen, then it is logical to assume that so are professors in other disciplines. Consequently, large numbers of graduates in medicine, law, and engineering could also claim poor teaching. If this is the reason behind some of the responses, Mr. Albrecht's question has little value until he compares schools of education with other professional schools.

2. Some education courses were poorly taught. If so, distinction between the efficient and inefficient teachers should be made. However, the question offers no opportunity for distinguishing. So, for emotional or statistical reasons, some pollees lump the good with the bad and vote adversely.

3. No education courses contained any materials of any worth for inducing useful knowledge, attitudes, and skills. Such a proposition is incredible. From the beginnings of western civilization some of the most profound thinkers have turned their energies to the problems of education. Philosophers—Plato, John Locke, Rousseau, Alfred North Whitehead, John Dewey—have dug into theories of knowledge, examined social objectives and logical principles. Historians such as Merle Curti, T. L. Jarman,

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and John S. Brubacher have studied the cultural contexts of education. Psychologists from J. F. Herbart, William James, and E. L. Thorndike to Herbert Mowrer and Jerome S. Bruner have explored learning and behavior. Lately, some anthropologists and sociologists have turned to educational implications in analyses of culture and society. Several linguists and statisticians are laboring in the educational vineyards. And the twentieth century has seen the development of a difficult branch of scholarship, comparative education, in which such distinguished humanists as Michael Sadler, Isaac Kandel, and Robert Ulich excel.

If no courses used any materials from such sources, which is unlikely, then again, California schools choose their professors poorly. However, if all courses did contain such materials, Mr. Albrecht should have asked his pollees, "Were you capable of benefiting from the education courses?"*

4. Some education courses contained valuable materials and some courses did not. This is similar to item #2 above. But the pollees should have been asked if they were able to understand those courses which did have value. And could they see the differences in the varying levels of value?

5. Some courses consisted largely of well-known and repetitious materials. This charge is frequently heard and there is some justification for it. Most of the educational problems so hotly discussed today involve profound and complex factors, yet too many education courses and textbooks reduce these to deceiving simplicities, as if teacher trainees were incapable of grasping the difficulties involved. If the reader doubts this, he can compare the writings of the men named in item #3 with the reductionist type of textbook. He will find Dewey's logical and epistemological concepts frequently oversimplified in explanations of problem solving. As another example, E. L. Thorndike's law of readiness is often translated as meaning that teachers should wait for the child to express the desire to read before he is taught reading. And watered down Freudianism has been used in some education texts and courses.

Now, if all education courses were of this reductionist kind, Mr. Albrecht would have been justified in framing the question as he did. But not all education courses do oversimplify. If he understood this, he knowingly reduced his question to the same level as the courses he is obviously seeking to derogate. If he did not understand, then his ability to throw light upon complicated problems is questionable.

When one views the first question along with the other questions in the survey which deal with education courses, it is easy to suspect that Mr. Albrecht hopes to eliminate all education courses. There are sound reasons why this is a vain hope.

First, the educational enterprise has grown too large. It is subjected to many pressures and many things are expected of it. It cannot be run by improvisation, but requires theorizing and scholarly research. The problems of education have become so numerous and complex that they must be studied in their philosophical, historical, psychological, anthropological, sociological, didactic, and administrative aspects. It is impossible to deal with them competently without total devotion to the task.

Second, eliminating education courses would enlarge our problems beyond any hope of adequate management. There is evidence for this. For example, only two-thirds of all eligible children between five and seventeen graduate from high school. Not all of these drop out because of poor health, lack of money, or lack of intelligence. Of those who fail to graduate, nearly 20 per cent are in the upper quarter of their classes. We may not yet know enough about motivating and directing learning, but if we ceased to apply what we do know, the situation would be far worse. Other examples illustrating the need for education courses are found when we examine the problems of finance and administration, mental hygiene, and curriculum construction.

Third, there exists a large body of knowledge concerning education. We know some things about intelligence, motivation, discipline, objectives, and other key factors. We certainly do not know enough, but the fact that men are curious about the unknown guarantees that they will continue to theorize and investigate. Admittedly, the domain is so sprawling that the trivial often dilutes the significant. This is usually the case when a profession is in its infancy. But to attempt to suppress this field because it disturbs some people would be as foolish and ineffectual as to attempt to circumscribe the advances of nuclear physics because scientific developments disturb some people. If Mr. Albrecht is clearheaded, he will come to see this. Then he will not waste his energies attempting to destroy what is indestructible (if this is his intent) but will turn to improving what does need improvement.

* I realize that this, too, is a loaded question. Few people would be so foolish as to answer it in the negative. But if the *correct* answer *were* negative, the pollee should never have received passing marks in his education courses. This merely illustrates how ridiculous such questionnaires can become when they deal with the complexities of producing an effective teacher. Consider the absurdity when the same question is applied to another area: "How important do you believe the history courses you took were in making you an effective citizen?"

SHORT SELLERS

By Donald S. Klopp *(Epsilon Alpha 96)*

When little tykes trudge off to school
With pictures, pets, and knicks and knacks,
Mom knows the day is "Show and Tell"—
All arms are laden. Also backs.

Yes, coast to coast wee operators
Plug their lines and learn hard sell,
Share dividends, then split their stocks:
The new American Tell & Tell.

The Change and Improvement Of School Practices

By GERALD T. KOWITZ

IN almost all of the clichés there is an element of truth, and so it is with that favorite of American schoolmen: Education is facing great change.

From one point of view, change is the hallmark of American education, but viewed through another frame of reference school operation has changed but little in the past century. There is, indeed, a need to understand what change really is and what it means.

Obviously, change and improvement are not the same. While some people balk at the idea of change, everyone favors improvement. There is some reason for the difference. Not all changes in education are improvements. Some have been so superficial that only names were altered. Others were little but a refusal to face present problems by retreating to the shelters of tradition and historical precedence. In some cases a rather general and somewhat vague recognition and acceptance of change has been used to create a region of psychological safety. Thus many school people have used the fantasy of constant and imminent change to avoid evaluating their present practices. Lacking objective criteria, they continue to operate on the supposition that it is enough to do "the best we know." In this way, they can dodge both criticism and the pressure for real change.

Change and Criticism

There is today a sincere concern over the future form of school operations, not only on the part of school administrators but also by interested parents and an awakened public. This is due in part, at least, to the general air of criticism in which education has existed for the past decade or more. For a time it was sufficient to reply to the critics with a few well chosen words prefaced by the unspecific "they": "They" do not understand our principles, our practices, or our purposes. "They" do not appreciate the handicaps under which we are struggling. "They" are not truly interested in general education but are trying to gain special favors for interest groups. In spite of the elements of truth in these countercharges, the concerns of the critics are now becoming so poignant and particularized that specific answers are demanded. Also, it is becoming obvious that if the professional educator is either unwilling or unable to provide leadership it will be sought elsewhere.

This attitude is almost a complete departure from that of a few years ago, when education was acclaimed as the panacea for all social ills. Slums, juvenile delinquency, unemployment, international conflict—even insanity, venereal disease, illegitimacy, and dental caries—were blights that could be removed by appropriate programs of education. An unfortunate result of this Great Inspiration was an overselling of formal education. Perhaps too late, professional education is coming to realize that academic knowledge is neither the only nor the ultimate motive force for human beings.

Failure to deliver the promised paradise has caused a loss of faith in the professional educator. Many of those who supported the public school have become disenchanted with it. They are suddenly aware that the chief school administrator is no longer the headmaster of an institution concerned with the nurturing and flowering of the human mind but merely an administrator, essentially a keeper of accounts and a purveyor of floor wax and paper towels. He has become so concerned with the administration of the school as a publicly supported institution that he has lost contact with the school as an educational institution. To no small degree, the problems recognized by school administrators today are more like those facing the administration of other publicly supported institutions, be they penal, hospital, or custodial agencies, than they are like those of the teacher and the educator.

Change Through Research

Another evidence of the growing concern over future directions is the increase in financial support given to research and experimentation. The past ten years have seen a tremendous growth in the support of educational research and development programs by private foundations. The Ford Foundation has probably been outstanding, but the impact of others must also be recognized. These usually

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represent valid attempts to develop better programs and to improve school practices. More recently, the State of New York instituted a program of special support for school-operated experimental programs. Its avowed purpose is to aid the schools in developing new and better methods of teaching and of exploring new materials that should be taught. Still more recently, the National Defense Education Act has provided federal money for the development and improvement of certain types of programs.

Educational Theory and Change

Perhaps the most convincing evidence of concern is the inability of school operators to project improved practices from their present methodologies. Current educational theory seems to be near its limit. In part, this may be a result of administrative energy being focused on other areas, and in part it may be a result of attempts to standardize the school operation. Obviously, if a school program is going to be geared to the criterion of tests, it will not be long before instruction reflects the tests which were designed to evaluate it. Eventually, given a period of successive approximations, material taught and material in the tests become identical. When this point is reached, the scope of education has been severely restricted, its applicability lessened, and its interest for the student impoverished. The school, rather than a place of education and opportunity, will have become an elemental rat-race where one must master certain minimum, specific facts. It will be a goal in itself rather than an inspirational gateway to knowledge and liberation of the human spirit.

This problem is reflected in the type of question that is being asked again and again by school administrators: After you have expanded and reconstructed your curriculum, what do you do? After your pupil-teacher ratio has been reduced to 18- or 15-1, how can you improve classroom operations? After you have grouped, developed tracks, and removed deviant children from the classroom, what else can a school do to help the teacher and the student? After a school has a four-year program of science and four years of each foreign language, what can it do to aid the education of its gifted children? After a program of enrichment and individualized instruction is operational, *quo vadis?*

Out of all of this emerges a general question: Do we really need more of the same? The past years, while they have seen many superficial changes, have not seen the introduction of new concepts, either in methodology or curriculum content. Essentially, we have been concerned with perfecting and developing the concepts and practices already in existence. To put it another way, we seem to have reached the limit of our current educational theory. While this hiatus certainly does not exist for all schools, a few have reached it and others can see it ahead. Professional education cannot neglect those schools which have been unwilling or unable to approach these ideals, but it also must begin to provide leadership for those that have exceeded them.

THE NATURE OF CHANGE

PROGRESS comes in two forms: through evolution and through revolution. The slow change of evolution reflects an essential satisfaction of the consumer with the product and the processes involved in making it. There are, in fact, many who feel that in a normally evolving situation the consumer is essentially a roadblock. Without his conservative tendencies, progress could be realized much faster. However, viewed from a longer time perspective, this objection is not wholly valid, for the moderating effect of the conservative view has prevented many a fiasco.

The rapid, painful change of revolution occurs only as the indirect result of growing dissatisfaction. It is not a plant that flowers in the abyss but rather one that emerges when a small hope can be seen. With this hope determining direction, the old standards and the old methods are quickly destroyed; unfortunately, it is often much later that reasonable replacements for them are found.

It is difficult to comprehend the true nature of a changing pattern from the inside. It is the solemn hope of every group in such a situation that they will be able to recognize the time for decision. This, in part, grows out of the war-born dream of glory, the need to strive and win. It also reflects the fear that if one does not win, he may be left behind or destroyed with the old regime. In considering the timing of change, it can be comforting to speculate that the time for decision is still approaching. But it comes as a shock to realize that it may already be too late. It is not uncommon for those on the inside to be unaware of a need until the last opportunity has passed. On the other hand, it is also imperative to recognize that the symptoms interpreted as a need for change may be merely the creaking and groaning of the present organization in response to the wind (and wind there is in professional education).

THE PATTERN OF PROGRESS

PROGRESS does not, like the phoenix, spring renewed from the ruins. It is something that, one way or another, must be planned. This does not mean that the administrator must institute a research program or become a researcher. Scientific research, particularly in the human sciences, is a field requiring long and rigorous training. Furthermore, a few of the specific techniques can be profitably applied directly to operational problems.

However, these facts do not release the administrator from responsibility for the development of new, more effective programs. The requisite knowledge does not come easily. While there may be times when a carefully controlled experimental program will be his best choice, more often the administrator will resort to a number of managerial devices which are easier to use. These can provide him with a view of

the program that will allow him to make evaluative judgments on its effectiveness.

Fundamental to these devices is a conceptual model of the operation. How does his school function? What are the factors which make a direct contribution to the education of the students? Which have only a supporting role? Which forces are time bound, being critical only at certain moments, and in which are the procedures more important than the timing? In developing this model of the operation, specificity and detail are of the essence. Generalizations, such as "teaching the whole child," "a community school," or "a grade of 65 is required to pass" are of little help. In the first case, even the whole child must be taught something and there must be standards for assessing what he has achieved. In the second, the delicate difference between providing necessary information and usurping the time of adult citizens by demanding unnecessary participation must be recognized. In the third case, any standard that does not allow for individual differences is less than useful. Where the standard is adjusted to the achievement of the group, the arbitrariness of the critical score must be challenged.

When an adequate model has been devised, certain managerial checks must be placed on its operation. We must be sure that it is accurate, that it represents more than the hopes and aspirations of the group. It must function in reality and it must produce in reality.

VERIFICATION

IN the use of a model to assess educational change, the nature of verification is of supreme importance.[1] It is not enough to assume or to believe that this is so or that is so; it must be demonstrated.[2] There is a hierarchy of acceptable demonstrations[3] which can be used to indicate whether verification does, in fact, exist.

The Test of Affective Congruence

What is perhaps the lowest criterion in this hierarchy may be termed affective congruence. This is simply a subjective contentment with the state of affairs, or at least with our perception of the way things are. There is no attempt to verify or to justify our model beyond this affectional recognition of the situation. In fact, it might not even be necessary to specify what our model is. We are satisfied with the operation; we are not concerned with its development, change, or improvement.

The existence of the program is justified by stated definitions, and those who run it believe that they are correct and it is good. No conflict is allowed. Any attempt to question or to demand verification is labeled heresy. Typical of such a situation is resistance to defining the details. An enriched program is good; so is nurturing the whole child. Similarly, the study of the English language is essential, and every child ought to be at least exposed to mathematics and science.

If the details are not defined, there is no means of seeking confirmation, and the opinion upon which the program rests can be neither challenged nor denied. A corollary to affective congruence is the belief that there are some questions that simply should never be asked and, by the same token, there are some questions that can never be answered.

The Test of Consensus

The next level in the hierarchy has been termed consensus. Here, rather than demand an affective belief and unquestioning acceptance of the statement, one attempts to get verification through the agreement of independent experts. This is the opinionnaire level of verification. It is assumed that if everyone who is familiar with the operation agrees that it is correct and good, then to some extent it must be correct and good. Under this system some disagreement may be recognized as healthy and in some cases it may even be the cause of future examinations and new developments. The great danger is that "togetherness" will become a more important goal than effective operation. This can reduce consensus to the level of articles of faith.

The Test of Consistency

From verification by consensus, it is possible to rise to yet a higher level: verification by consistency of performance. If, in addition to the consensus of experts, a given operation consistently results in a similar product, it possesses reliability. This allows at least a low level of prediction, in that the nature of the product will continue to be relatively the same. Even though this may be an arbitrary standard, it does give additional support to the opinion of experts.

The Test of Action

The ultimate verification of a new program is its ability to produce. While at first it seems simpler to determine whether a program really works than to apply some of the other tests, it is actually more difficult. A test of action depends upon an external view of the results. To determine whether the student has become what we intended, whether he has the skills to do what is expected, and to show that these resulted from our efforts is not easy. Almost inevitably it requires a recheck after a time lapse. Admittedly, this will complicate the process enormously, but a test of action requires rigorous standards and demands hard, careful work. Because it is so difficult, it becomes mostly a goal towards which the management of the school strives.

Independent standards may be developed on many levels. While we can sample the child's ability to spell by a test, if the selection of the test words

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[1] G. T. and N. G. Kowitz, *Guidance in the Elementary Classroom.* New York: McGraw Hill, 1959.
[2] Anatol Rapoport, *Operational Philosophy.* New York: Harper, 1953.
[3] Jerome S. Bruner, *A Study of Thinking.* New York: Wiley, 1956.

is based upon teaching lists, our criterion is contaminated. Furthermore, as was pointed out earlier, as the test and the teaching become more alike, education becomes narrower and less potent. An independently selected list would give a better approximation, but as many teachers know, the results of a formal test do not necessarily show how well a child will spell in composition. Perhaps even more important, at present no test score can tell us whether the pupil is concerned that his words are spelled correctly in composition or whether he recognizes the purposes and need for communication, upon which the presence of spelling in the curriculum rests. Only with understanding can we expect a striving towards the goal.

The test of action, while the most difficult, is final. With it we can be very sure that our program is operating properly and efficiently.

MANAGERIAL RESPONSIBILITIES OF SCHOOL ADMINISTRATION

TO provide the space and materials for operation is an important and easily recognized task of the administration. The great concern of administrators with school finance is a reflection of this. However, responsible administration does not stop with providing facilities nor with the examination of waste and the search for economy; it also has a responsibility for the effectiveness of operation.

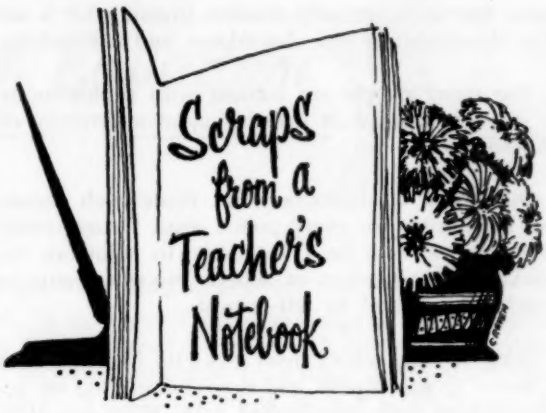
Operational management has two simultaneous goals. It must guarantee an acceptable level for the present program, and it must be developing improved programs. An unavoidable part of this is the assessment of the current status of the school.

A first step in assessment can result from examining the nature of the verification that is accepted. If there is a striving towards a verifiable model, towards external criteria for the evaluation of program, then the school is probably quite healthy. However, if it is simply relying upon articles of faith and refusing to examine the results of its operation, it is ripening for a revolution.

The improvement of school practices is, to a great extent, based upon the willingness of the administrator to examine his operations. A first assessment is available in the level of confirmation that he is willing to accept. A periodic evaluation with a corrective feedback will almost always result in a gradual, evolutionary improvement. If this is not allowed, the catastrophic, revolutionary change is imminent. The administrator is not allowed to choose between change and no change, but he can choose a process for mediating improvements.

► Quoted from the *Devil's Advocate for Teachers*, a Bodega Bay, Calif., publication:

"There was the time when 'closed circuit TV threatens technological unemployment of teachers,' remember? You can expect brass hat enthusiasm over these frills as they come along—it's an administrative occupational disease. . . . "



DON ROBINSON

We preach a government of laws, but at the immediate action level in high school students learn to adapt to a government of persons. "Mr. Smith makes us be quiet." "Mr. Hardy lets us talk." "Mrs. Dunham tells us to be quiet, but she doesn't make us."

Relaxing school-wide rules for student behavior in favor of allowing each teacher to maintain his own standards does contribute to a lessened respect for standards and a stronger inclination toward other-directedness.

* * *

Man is so shortsighted. He fails to perform tasks which he knows would be to his advantage. So the state must enforce vaccination, school attendance, maintenance of standards of health and cleanliness, and sundry other requirements. Standards and requirements are inescapable, but so are personal choice, and freedom of action. How can the school escape responsibility for providing students with both freedom and discipline? Do not allow a student to do only what he wants; teach him to do what he must do.

* * *

How can we promote an atmosphere in which an overwhelming majority will say, "We are soft, we are decadent, but we need not be. All we need do is to exert ourselves to be only a little tougher, only a little less self-satisfied and self-seeking, only a little more thorough and more diligent. I will not criticize others, except when it is distinctly my responsibility, but I will damn sure improve myself." And mean it. And do it.

* * *

One side of man continues diligently and endlessly the search for what the other side knows he will never find—the absolute answers that do not exist.

* * *

Altruism, modesty, and good will are vital forces in any ordered society. How far should the public high school go in fostering the myth that they are the dominant forces? Today sophisticated students

know that they are only window dressing for a society dominated by ego, shrewdness, and self-seeking.

* * *

Too many people are content with a philosophy of diversity instead of insisting upon a diversity of philosophies.

* * *

Our brand of democracy has made each person feel responsible for every public issue. Consequently everyone wants to be a watchdog, to point out the weaknesses and errors of others. No one wants to watch himself and be self-critical.

* * *

Some say the school must make up its mind what it wants to accomplish and then concentrate on accomplishing well this limited task. Why so? Why must the school have a limited set of goals? The American public school can accomplish many things well. It can support a variety of functions for a variety of students. It *is* necessary for each teacher to know what his function is and concentrate on doing that job well. No teacher can be all things to all students—but a well-planned school can.

* * *

If we accept the view that the public is responsible for determining basic school policy and for assessing the over-all effectiveness of the educational program in attaining the desired goals, while the selected experts are responsible for the administration of the program (curriculum, methods, personnel selection, etc.) to implement that policy, we are still faced with some prickly dilemmas, chief of which is identifying the public. If two equally numerous and equally articulate factions in the community are vociferously devoted to extreme uniformity of curriculum and extreme diversity of curriculum, it is no easy matter to nurture a consensus. Unhappily, the public debate tends to accentuate the extremes rather than to cultivate the consensus.

* * *

Many quite ordinary teachers would be creative if offered creative leadership. What does your school provide that stimulates or rewards imaginative teaching?

* * *

People can learn facts and ideas through intellectual effort. They can seldom change a conviction without some appeal to the emotions as well as to facts and logic.

* * *

The fact that the majority of all learning is informal and unplanned does not invalidate the importance of formal, guided learning; if anything, it enhances it.

* * *

A curious apparent reversal has taken place. We now teach some students the rudiments of research in the fifth grade while we teach others how to spell in college.

* * *

Too often success in education is the mark not of skill or intellect or invention, but merely of endurance. Once the individual has learned how to read, sheer persistence can sometimes carry him right up through the Ph.D.

* * *

Some aspects of education, like some aspects of poetry or personality, are ameable to rigid analysis and quantitative assessment. Still, the over-all validity of a program must remain a value judgment. Through the ages whole populations have never agreed on what constitutes an effective education. Small groups of privileged leaders have agreed and have foisted their notions on all. Today, as always, we can have partial agreement among the educated, but no more agreement than upon tariffs, defense spending, or farm price support. It seems unreasonable to expect the kind of agreement that the Council for Basic Education seems to insist upon.

* * *

If adolescents, with all of their tensions and inexperience, and with the lack of assurance and lack of direction that is inevitably theirs, can be even as stable as they are, the wonder is that adults cannot become more stable than they usually do.

Who Changes What?

► C. D. Hardie, writing in the October, 1960, issue of *Educational Theory*, says, "Many of those who work in the field of education like to feel that they are helping to change the world. Indeed, one of the reasons often given by students who are going to teach for their choice of profession is that they want to influence other people's lives, and in that way produce better individuals and hence a better world. This power of education is certainly very real and is not likely to be forgotten or ignored. But the converse relationship is sometimes ignored. By this I mean that some people who are interested in education do not realize the extent to which changes in the world and in our knowledge of it produce changes in education. . . . "

Mr. Hardie, a professor of education at the University of Tasmania, deals with changes in the way we think about the world and the effect they should have on philosophy of education.

Teach about Schools in School?

► Education has become a "conversation piece" in recent years, says *Public Relations Ideas*, a publication of the American Association of Colleges for Teacher Education. But, according to Neil McElroy, former Secretary of Defense, not many people know much about the subject. He suggests that "American Education" be included as a course of study in our schools. "Few schools now teach anything," he notes, "about the complexities of the system, its management, administration, and financing. Yet these things should be known by every citizen interested in education."

Keeping Abreast in Education

NSF Puts New Emphasis on Social Sciences

► The National Science Foundation has established a Division of Social Sciences, supplanting the Office of Social Studies and giving the social sciences a position correlative with the physical and biological sciences, which have heretofore had the lion's share of support.

Says *Science,* official journal of the American Association for the Advancement of Science: "Social scientists will be pleased, and so, unless majority opinion has changed since 1947, will most other scientists. . . . Support, the NSF has pointed out, will be for basic research that meets high standards of conceptual and methodological rigor, not for 'applied craftsmanship in social affairs.' This is as it should be, to be consistent with other programs of the NSF, to allay any remaining fears that the term *social science* is merely a cloak for action on important but sometimes controversial social issues, and to help competent research scholars interested in human and social behavior to develop their field to the point where there will no longer be any doubts concerning the appropriateness of the word *science* in *social science.*"

The new NSF division will include anthropological, economic, and sociological sciences. Heading it is Henry W. Reicken, formerly with the University of Minnesota.

Related to the NSF development was the endorsement in November by the Council of Chief State School Officers and the American Assembly at St. Louis of federal support for social sciences and the humanities.

Music as 'Mind-Stretching' as Physics?

► Music education, particularly in secondary schools, should be broadened to include the academically talented student and not be limited to those who are musically talented, says a report from the NEA Project on the Academically Talented Student and the Music Educators National Conference.

Academically talented youngsters, says the report, can reap special benefits from a program which provides understandings of music as a means of communication and insights into form, structure, and composition. They may not be interested or able to participate in performance groups, it notes, but adds that their exploration of good music can become as "mind-stretching" as a course in physics or mathematics.

Tape Recording Repository for the World

► A unique mail order business with an international flavor is growing rapidly at Kent State University.

Requests come daily from some nation or overseas education center for one or more of 6,500 recordings on deposit at Kent.

Since 1954, the university has served as the Educational Tape Repository for the world. Its collection of master tapes covers practically every subject imaginable, from Eskimo art through jazz to space travel and poetry.

The repository, a cooperative, non-profit venture, is administered by a joint committee of the Division of Audio-Visual Instruction of the NEA and the National Association of Educational Broadcasters.

Tapes in heaviest demand in the United States are those dealing with foreign languages. Foreign clients want tapes predominantly in literature, music, education, and the social studies.

NDEA Language Institutes in High Gear

► Nearly 3,200 elementary and secondary school language teachers will attend fifty-five National Defense Language Institutes to be conducted next summer. Five regular session institutes will be conducted during the 1961-62 academic year.

Total cost of the institutes program will be $6 million, of which $5,257,000 will be used for the summer institutes and the balance for the regular session institutes. Enrollees from public schools receive stipends of $75 a week and $15 for each dependent. Private school enrollees receive no stipends but pay no fees.

Enrollment of secondary school teachers this summer will include 1,105 French teachers, 228 German teachers, 196 Russian teachers, 1,029 Spanish teachers, 24 Italian teachers, and 40 Modern Hebrew teachers.

Elementary school teachers will include 188 for French, 41 for German, and 209 for Spanish.

A list of institutes is available from the U. S. Office of Education upon request.

Demand NDEA Revision

► Social studies teachers meeting in Boston November 23-26 renewed their demand for revision of the National Defense Education Act. Representing the National Council for the Social Studies, they would include funds for students and teachers in the social studies field.

Why Nonsmokers Make Better Grades

► University of Maryland psychologist Donald K. Pumroy reports that cigarette-smoking students do not do as well academically on the average as nonsmokers.

The more a student smokes, says Pumroy, the lower his grades are likely to be.

However, Pumroy does not imply that smoking dulls the mind or enthusiasm for study. He theorizes that the reasons students smoke may be related to the reasons they avoid studying.

In the psychologist's sample were 204 freshman boys, selected at random. One hundred nineteen nonsmokers had an average grade of 1.98. Students smoking half a pack of cigarettes a day averaged 1.92. Those who smoked more than a pack averaged 1.38.

Pumroy notes that about ten other similar surveys made since 1909 have yielded similar results.

He comments on his findings thus:

"There are many rules that are laid down by the adult society and with which adults say they and others should conform. Certainly one rule has to do with smoking.

"The rule is that children should not smoke until they reach a particular age. This is the law in many states. Thus if a child wants to appear grown up or to rebel against the adult culture, then the way to do it is to smoke.

"Society also says that you should study. To be negative to society, smoke and don't study."

Technological Developments and Teaching

► The NEA plans an eighteen-month study of the effect of technological developments on teaching. The U. S. Office of Education has provided $102,980 under the National Defense Education Act to support the research.

Directing the study will be James D. Finn, professor of education at the University of Southern California and president of the NEA Department of Audio-Visual Instruction.

Under scrutiny will be new developments in TV, teaching machines, learning laboratories, and the more conventional audio-visual materials.

More Criticism of NDEA

► The executive committee of the American Association of School Administrators has adopted a statement criticizing the National Defense Education Act for its "categorical type" support for education. "The NDEA has been cumbersome, expensive to administer, characterized by too much red tape, and in several respects it exerts control and federal direction to the public school curriculum which are unsound in terms of national and state policy," says the statement. It adds that the committee believes that the next Congress should pass a general support bill for the operation and capital improvement in the public schools with the specific use being determined by states and local school authorities.

A Plea for Action on Federal Aid

► The January *Redbook* magazine carries an editorial titled, "Let's Stop Playing Politics with Our Children's Education." After an outline of the need for federal aid to education, the plea for action concludes as follows:

"Through all the debates one fact remains clear: The voting public wants Government aid for its schools. Recent opinion polls show that three out of four Americans favor Federal aid to education.

"You can lend your support to education by urging your representatives in Congress to carry out your wishes. . . . Write the chairmen of the two congressional committees on education—the Committee on Education and Labor in the House of Representatives and the Committee on Labor and Public Welfare in the Senate. Urge the chairmen to help initiate Federal school-aid legislation early in the session."

The Future of Property Taxes in Iowa

► Iowa property taxes to support public schools will rise 50 per cent in the next eight years if present trends continue, according to the Iowa Center for Research in School Administration, State University of Iowa. Annual property taxes for Iowa schools went beyond the $100 million mark early in the 1950's, will exceed $200 million in 1960, and will hit $300 million annually by 1968, according to the new research center, established last year to improve educational administration in Iowa. It is financed mainly by dues paid by some 150 schools of the state which are charter members.

NSF To Help 20,000 Teachers Modernize

► This summer the National Science Foundation will help 20,000 high-school and college teachers of science, mathematics, and engineering look at new developments in their subjects and in the ways of teaching them. Grants totaling nearly $22.7 million to 260 colleges and universities have been announced in support of 395 summer institutes.

Typically, the summer institutes accept about fifty applicants for six or eight week sessions. Tuition and fees are paid for all teachers attending. Stipends of not more than $75 a week are allowed, plus travel and dependent allotments up to four in number.

New Grant for Yale Math Study Group

► The National Science Foundation has granted $1,184,200 to Yale University to continue support of the work of the School Mathematics Study Group headed by Edward G. Begle. The group has made the most sweeping overhaul of the mathematics curriculum performed in this century. More than 800 researchers, scholars, and teachers have prepared textbooks and teacher training materials now being used by more than 3,000 teachers instructing 100,000 students. The new grant brings to $4,284,200 the total of NSF funds appropriated for the purpose.

Who Has Most Ph.D.'s? Not the Universities

► "Today the single organization in this country that employs the most Ph.D.'s is not Harvard or Yale or Illinois or Michigan. It is DuPont. Furthermore, General Electric has more than twice as many Ph.D.'s on its staff as Princeton, Shell has more than M.I.T.; Union Carbide or Eastman or IBM has about as many as Northwestern or Cal Tech. Such industrial firms employ more Ph.D.'s today than all the liberal arts colleges in the country put together, and the federal government has about as many as the top ten universities put together," says Bernard Berelson, director of the Bureau of Applied Research at Columbia University.

Researchers Don't Believe in Freedom

► How researchers view the classic "ideology" of science has little relationship to their professional productivity, according to S. Stewart West, a sociologist at the University of California Medical Center, Los Angeles. Interviews with fifty-seven researchers in six science departments of a major Midwest university show that less than half believe in freedom of research in the classical sense, only a third in impartiality, and only a fifth in suspension of judgment, in absence of bias, in free diffusion of information, or in group loyalty. The full findings are reported in the *IRE Transactions in Engineering Management.*

Foreign Language in a Foreign Setting

► Three NDEA foreign language institutes will be held this summer in foreign lands—the USSR, France, and Germany. Indiana University will conduct a ten-week advanced institute in Russian for forty-two secondary teachers, the last five weeks of which will be held in Moscow. Stanford will conduct an institute for eighty-two advanced students at Bad Boll, West Germany. The University of Oregon will conduct a French institute in Tours, France, for eighty teachers.

Studying on the Installment Plan

► Wayne State University's "go now—pay later" plan for education is working out very well, according to Elizabeth Platt, registrar. Wayne is the only university or college in Michigan which has both deferred tuition payments and advance registration. A high percentage of students take advantage of the pay later plan, which requires a 25 per cent fees payment at the beginning of a term and the remainder in monthly 25 per cent installments.

Counseling and Guidance Institutes

► Seventy-seven institutions of higher education will conduct short-term National Defense Counseling and Guidance Institutes this summer and seventeen will conduct regular session institutes during the following academic year. About 2,580 secondary school personnel will attend the summer institutes and 670 the regular session institutes.

Co-op Housing for Retired Teachers

► Ground has been broken for the Indiana Retired Teachers Community, a housing project sponsored by the Indiana Retired Teachers Association. Located on a 46-acre plot in Greenwood, a town of 6,500 population ten miles south of Indianapolis, the community will eventually house over 200 retired teachers.

The new center will include 192 apartments of one-, two-, and three-room design, plus recreational and health services. At the ground-breaking ceremony last fall, Robert H. Wyatt, Indiana State Teachers executive secretary, spoke of the need for such communities where teachers could live independently yet have the facilities and services of a program such as that planned. "A civilization can be judged," he said, "by the way it takes care of its retired citizens."

Robert C. Harris (Zeta 69) and H. E. Binford (Alpha 474, emeritus) are president and vice-president, respectively, of the Indiana Retired Teachers Association.

Seven Battles for Public Schools

► William Marshall French identifies "seven additional battles for public schools" in the October 8 *School and Society* (reprinted in the January *Education Digest*). They are: to keep the schools nonsectarian, to assure the responsible teacher his professional freedom, to achieve adequate financial support, to assure every child the educational opportunity he merits, to defend the public school from fragmentation and against segregation, and to secure an adequate supply of competent teachers.

Teachers' Manual on United Nations

► New York City schools have published a new manual for teachers on the United Nations under the title, "Toward Better International Understanding." It is detailed and rich in facts about the UN, with suggested pupil activities for grades two through twelve, and includes sound teaching units, generous bibliographies, and an appendix containing excerpts from major UN documents. The manual is for sale for $1.50. Address New York City Schools, 110 Livingston St., Brooklyn, N. Y.

National Forecast of College Enrollment

► Ronald Thompson, executive dean for special services at Ohio State University, has received a Ford Foundation grant to forecast student enrollment in U. S. colleges and universities for the next 18 years. In similar projections made within the past decade, Thompson's error has ranged from 1 to 2 per cent.

Wilson To Succeed Adams at ACE

► Logan Wilson, president of the University of Texas from 1953 to 1960 and chancellor since last year, will be the successor to Arthur S. Adams as president of the American Council on Education. Adams retires this spring.

► Ohio State University's Teaching Aids Laboratory has prepared what is believed to be the first set of color film strips presenting the philosophy which underlies modern elementary education practices.

Norman Woelfel, director of the laboratory, said the set covers curriculum, methods, child psychology, behaviorism, and relationships between child, teacher, home, and school.

Titled "Teachers at Work," the set was developed by Laura Zirbes, Ohio emeritus professor of education and widely known author. Each of the five strips contains 49 to 59 frames with pictures and text. Although designed for teacher education, they are also useful for PTA meetings, according to Woelfel. Cost is $20 per set, including a handbook.

► *Schools in Our Democracy*, a brochure presenting analysis and criticism of five basic educational issues, has recently been published by the U. S. Office of Education. It discusses character education, high schools for all, American vs. European schools, national school standards, school leaders, and present and future school needs. Available from the Government Printing Office, 15¢.

► The Mathematical Association of America believes that the education of math teachers must be drastically overhauled. It has published a curriculum outline for the preparation of teachers. Copies are available from the association's executive secretary, Robert J. Wisner, Michigan State University.

► Illinois teachers are urging, through the Illinois Education Association, the creation of a state board of education which would appoint the state superintendent of schools, now an elected official. Only Illinois, Wisconsin, and Michigan do not now have state school boards.

► Something to watch: "The Twentieth Century" report titled "The College Panic," coming up on CBS television stations Sunday, Feb. 12, 6:30-7 p.m. E.S.T. One of the guests is Vance Packard, whose book *The Status Seekers*, bares the prestige factors of "big name school" mania.

► Fall enrollment of full and part-time students in the nation's colleges and universities this year reached an all-time high of 3,610,007, according to the U. S. Office of Education. This is 6.1 per cent above 1959. The increase was greater for women than for men.

► From the NEA Research Division: public school enrollment increased 1.2 million this year; the average annual teacher salary is $5,215, a gain of 4.4 per cent; expenditures per pupil range this year from less than $25 to $585.

► The New York State Department of Education has ruled that it's OK for parents to have access to their children's school records—including so-called confidential IQ and test scores.

S R BONDS

Pow! Wow!

Dear Editor:

Wow—what an issue! [December KAPPAN.]

Those "fairy tales" will make a lot of hackles rise!

—ARCH SHAW, *editor, Overview*, New York City.

The Benefits of Bickering

Dear Editor:

I would like to congratulate you on your December issue. You are at long last providing the field of professional school administration with a journal in the academic tradition which permits us to quarrel in public with our colleagues and thereby be stimulated to efforts we might not otherwise make. It is an important contribution to the development of our profession and our field of study.—H. THOMAS JAMES (Delta 2264), *associate professor*, School of Education, Stanford University.

Jackassery? Lollapalooza?

Dear Editor:

I am happy to write with heartiest congratulations on the December, 1960, issue. All of it from cover to cover is excellent. . . .

I particularly wish to comment on the method of handling the Max Rafferty-Earl H. Hanson material. Rafferty's, in the main, is jackassery. The column-by-column reply by Hanson is a lollapalooza. . . .—WILLIAM H. BURTON (Zeta 563), *director of apprenticeship teaching* (emeritus), Harvard Graduate School of Education. (Now living at 3512 Willamette, Corvallis, Ore.)

What We Felt, But Couldn't Say

Dear Mr. Rafferty (copy to the Editor):

I've just put down my December KAPPAN and, despite the fact that I am supposed to be vacationing, I had to write you about it.

I went into education back in 1937, and up the usual ladder of vice-principal, principal, and superintendent. So I know a little bit about the business. Your article on "fairy tales" in education expresses exactly what so many of us have long felt, and yet did not say because the channels were closed to us. It has only been recently that the returning tide of sanity in education has made possible the public expression of these sentiments.

I thought the two articles [by Rafferty and Hanson] gave a remarkably clear picture of the fundamental split in our profession. However, in view of what Mr. Robinson had to report about the "conservative revolution" in California, it would appear that you are voicing the opinions of the vast majority

of the teachers and administrators in this state, at least.

I suppose you will be reviled for telling the truth, but I hope you will continue to speak and write for what so many of us believe sincerely to be the only way the future of our country can be safeguarded.—D. M. CHENEY, *former superintendent*, Trona, Calif. (now at 2547 Hill Dr., Los Angeles).

Atta Boy, Earl

Dear Mr. Hanson (copy to the Editor):

Upon reading the latest PHI DELTA KAPPAN, I am stirred to throw an "atta boy" in your direction. The point you make about the trend of educationalists to make an either-or argument out of all controversies has disturbed me greatly. Until we in education can look at issues calmly and logically without allowing personalities or imagined attacks to color our thinking, we will be unable to resolve the questions facing us. Personally, I feel that the awakened interest in education can be used for the advancement of our public school systems, but not if educators race madly with the wolf pack or lie helplessly bleating.—HARRY I. WIGDERSON (Phi (1095), *director of personnel*, Community High School, Villa Park, Ill.

Max Funny as a Cry for Help

Dear Editor:

I'm not at all certain that the situation you describe in the editorial of the December issue necessitated the nonsense found in the same issue. California has always had more nuts, screwballs, and extremists of all kinds than most of the states of the nation. . . .

Mr. Rafferty is about as funny as a cry for help . . . [his] writings do not stimulate thought through controversy; he only irritates by using time and space for this nonsense.

The PHI DELTA KAPPAN has improved considerably under your editorship, and the controversial topics have helped. However, if you want real controversy, you should get it from educators who have ideas and are scholarly writers. Invite men of the cut of Myron Lieberman, B. Othanel Smith, A. W. Anderson, Virgil Rogers, Robert Havighurst, Jacob Getzels, etc., to write. . . .—JOSEPH C. JURJEVICH, JR. (Pi 1290), *research associate*, The University of the State of New York, State Education Department, Albany 1.

(Editor's Note: *We have and we shall.*)

Now, Now, Mr. Hirschi

Dear Editor:

I have intentionally withheld comment on the writing of Max Rafferty, hoping that I had read him at his worst. It appears to me, however, that he has hit a new low in "The Seven Grim Fairy Tales." This diatribe impresses me as being the work of a cheap exhibitionist who disrobes himself in every paragraph. His disregard for facts and total lack of logic and reason . . . should forever bar him from publishing in our professional journal.—L. EDWIN HIRSCHI (Alpha Upsilon 603), University of Utah, Salt Lake City.

He's Quit, But for Different Reason

Dear Editor:

During fourteen years of reading the PHI DELTA KAPPAN, I have rated several articles beneath the desired standard of our magazine, both as to content and manner of presentation. Granted that the level of excellence has been steadily rising, yet I must claim that Rafferty's latest attempt to be cute has set a new low. Let us hope that Brother Max becomes just mad enough (over Brother Earl's skillful exposure) that he will stop writing for a while and spend some time taking an honest inventory of his own motives, using as a starting point Hanson's opening paragraph. . . .—PAUL HYLTON (Nu 1868), *director of guidance and special services*, Edmonds, Wash.

(Editor's Note: *Mr. Rafferty writes, "I have been reviewing the stuff I've had printed during the past five years, and I find I've had my say on just about everything in education I consider of real importance. Anything else from me would be redundant. Besides, the pendulum is swinging so strongly in the direction I like that there is no sense in my rocking the clock. So I'm calling it quits as a writer of articles."*)

Albrecht Questions Slanted

Dear Editor:

Congratulations upon the appearance and content of the December KAPPAN. I have found this to be the most stimulating and helpful issue in a long time. . . .

I have one unfavorable comment: Some of the questions contained in the [Albrecht] survey of teacher opinion in California are very much slanted or are stated in ways which are likely to influence the person who is expected to give answers. Perhaps this is unavoidable with a questionnaire of this sort.—SAMUEL ENGLE BURR, JR. (Beta 887), *assistant dean*, Division of General and Special Studies, The American University, Washington 16, D. C.

(Editor's Note: *You are right. See Mr. McKenna's comments, page 214, this issue. Mr. Robinson, our chief war correspondent on the "California revolution," and I both felt that despite certain unfortunate aspects of Albrecht's instrument, his findings were of such significance that they should be reported. And our own check proved his report honest and accurate.*)

1-10 Years to Live?

A Sane Man Does Not Hesitate

WE know, with the certainty of statistical truth, that if enough of these [nuclear] weapons are made by enough different states, some of them are going to blow up, through accident, folly, or madness, but the motives don't matter.

"If the world fails to reach an accord on banning nuclear weapons, the arms race not only will continue, but will accelerate and spread to many other nations. We have perhaps six years to reach agreement.

"On the one side we have a finite risk. On the other we have a certainty of disaster. Between a risk and a certainty, a sane man does not hesitate."

—*Sir Charles P. Snow*, scientist and novelist, now Regents' Professor of English, University of California, Berkeley